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SIR WILLIAM
BEACH THOMAS

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VILLAGE ENGLAND

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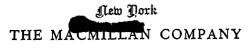
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VILLAGE ENGLAND

SIR WILLIAM BEACH THOMAS

AUTHOR OF "THE VEOMAN'S ENGLAND"





PREFATORY NOTE

Faber for leave to use a paragraph or two from pamphlets which they published entitled "The Happy Village": "Why England Goes Prairie": and "Why the Land Dies": and to the Editor of the Countryman, for leave to use a part of my contribution in his series: "Why I live in the Country." The bulk of the second part of the book appeared in the Observer, to whose Editor I am very grateful.

W. BEACH THOMAS

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THE HAPPY VILLAGE

cost countrymen who have watched, however carelessly, the changing seasons and delicate gradations that belong to our northern island are conscious throughout their life and wherever in the world they may be, that the village has remained the background of their memories—the fount and stimulus of all the class. of thoughts that spring from the senses. Everything about their village home consents to a mutual relation. In the village that I know and remember best the hedgerows and spinneys and rookery trees, the brook and fields, the haystacks and beehives, are as much an integral part of the village as Mrs. Jarvis's cottage "up-the-garden," and the blacksmith's shop, the church, school and rectory. The physical extremes of this village are to the east a low whitewashed farmhouse, with a low white railing and little wicket, and to the west another farmhouse, which was once an Elizabethan manor, as the round red-brick chimneys-or chimbleys-and the deep ingle-nook announce. A fox's earth remained year after year close up against the whitewashed house-you had only to cross the narrow planked bridge over the brook to see its broad mouth. The churchyard, a hundred yards farther on, was a great haunt of birds, from the gold-crest that nested in the yew trees to the jackdaws that colonised the tower and indeed the chancel roof. Wild honey bees—a large and continuous colony—hived in the hollow elm just half-way between the Rectory orchard and the village shop. You became a freeman of

the fields and spinneys, ex officio, by mere residence in any part of the village; that is why ever afterwards wherever in the world you might be, that village kept its place as the background of your life, your constant standard of comparison. Such a feeling is no accident or exception: the English village is like no other place. It is not found in equal power all over Britain; the birth and growth of it belong more particularly to the South and Midlands and East, and those of us who live there feel that we are at home again only when we re-enter this village country. The west of England is much more magnificent than the east; and the west holds many of the lovelier villages, such as Weobly in Herefordshire; but the homestead, the half isolated house and farm, often fill the place which is filled solely by the village or hamlet in the south and east. The first National Park (in which the people will own what William Rufus secured in Hampshire) will probably be Snowdonia, the second perhaps in the Lakes, or it may be Dartmoor; and they will deserve this name of National, that proud attribute. "The cataract haunted me like a passion" wrote Wordsworth; and he might have felt the passion at Llanberis which is the chief gateway of Snowdonia not less fully than in the Lakes. The fall there and the rapids haunt the memory as Niagara may in spite of their small proportions. The Devil's Kitchen is like no other place; and if the imaginative traveller needs a stimulus he may find it in the quaint truth that the little and lovely plant Lloydii, which grows thereabouts, has no nearer abode than the Swiss Mountains from which it makes giant strides again to Caucasian and Himalayan heights. The Western Islands may well be hailed as Paradises "which bards in fealty to Apollo hold": Lundy, where the kittiwakes (who on occasion migrate across the Atlantic) nest in hundreds along side

the romantic lighthouse; and the humorous penguinlike puffins are more common than sparrows; Ramsey Island where the heather hides the bluebells, where the seals play in the mouth of the caves, where the hordes of guillemot vainly guard their eggs from the greedy gulls, where the peregrin falcon is a daily spectacle. It is much commoner than the golden eagles about the Paps of Jura or the chough on the edge of the great loch that splits the island in two. And what a Valhalla on that dreamy shore is the vast cave where the red deer shed their horns, and in which they shelter from summer storms. How tame the English village beside these! But the world traveller will find it easier to parallel the Jura Paps or the Lundy birds than the south English hamlet clinging to its quaint church as a small child throws its arms round its mother's neck.

It appeals not least to men who have had no chance to enjoy its serenity. A strangely eager and romantic plea for the sanctity of the English village came from Cecil Rhodes—of all people—while talking with a group of Oxford dons in the college that afterwards greatly benefited from his will. In his eyes the English village was sacro-sanct. He delighted, both in its social cohesion and its scenic beauty. He spoke—to the astonishment perhaps of Lord Kitchener, the other guest—with lyrical enthusiasm of the material and spiritual grouping of the cottages round the church: it housed a virtue that he found nowhere else. The village made a home, true to the essence of home; and alone, was, like Wordsworth's lark by its instinctive nature, "True to the kindred points of heaven and home."

Another man of vision, Sir Horace Plunkett, with whom every year for many years I discussed the need of rural conservation and reconstruction, loved the village above all other communal groups. He used to complain that modern life has so urbanised the modes of thought of this generation that townsmen cannot so much as understand the value of productive energy. They are consumers, so thoughtlessly concerned with consumption that they cannot or will not trace the bread back to the grain or feel that the shop is founded on the field. The urbanisation often goes even farther than this. The people are confined to slums of thought, where not even a swallow twits them with the spring.

The countryman may be in the same case, but he can scarcely at worst escape contact with the essence of things and suck strength of character from touching the earth. A London worker who wished one future day to retire into the country, early in his career bought a plot of country ground and began to plant it with trees. He employed an old country labourer for the work and gave him precise instructions. They were accurately and honestly performed except in one particular. When he next visited the plot, the labourer met him and explained, "You did tell me," he said, "to plant the apple-trees here and the walnut-trees there; but I have planted the walnut-trees here and the apple-trees there. Ît did seem to me that some day, when you and me was gone, them walnut-trees would shade them apple-trees; and stop em' bearing so well." There spoke and thought the authentic countryman. He had ruled out self, his own self as well as his employer's. His mind was impersonal, independent of this moment or that. He knew himself as an agent of production; why not risk the bigger phrase and say a creative artist? His straight and simple mind hit the same truth as that rather self-conscious rural philosopher Thoreau, when he said well, but artificially, "You cannot kill time without injuring eternity."

It would not be true to suggest that the countryman harbours any abstract faith. A good old man who had lived a labourer's life wandered in his mind during his last days; and waking from a coma as a visitor entered, looked round his mean cottage room, and spoke meditatively to himself, "If this is Hell, it's not so bad, and if it's Heaven it's not so much to talk about!" He was nothing if not literal, was more literal than Pope's poor Indian who saw God in trees and heard him in the wind. His belief was scarcely touched with poetry or mysticism; but perhaps the religion of a man grounded on elemental things has a deeper foundation than appears, or is expressible in common words. Such utter simplicity of belief is already a thing of the past; but the fundamental quality of rural character is not dead and I hope never will be. It is apparent in almost all that the labourer does or thinks. One may say that the villager is a true product of his village, as well fitted to his home as the grey stone roofs to Cotswold cottages. He seems earthborn, as if he too had come from the local quarries. Doubtless he has changed and is changing. A new (and not a worse) type is emerging; but the portrait of the old villager, of Old George for example, is worth preserving. I saw him share in the cutting of one of the last fields of wheat levelled in the traditional manner. There were four reapers, ranged in echelon. Old George being the lightest and least famous mower of the team came fourth. was very spare and the crop was heavy. Four quarters to the acre was common on the "bean and wheat land" of that clayey country. He was spare but incredibly tough. As he mowed his arms became—or so I seem to remember-thinner, hairier, more wiry with each day of wrestle in the summer sun. He had his village pride and would have dropped dead of exhaustion rather than not

keep pace with the other three or fall back behind the leader. He started some ten or at most twenty yards behind and meant to finish some ten yards behind. The scythes were armed with a rail of wooden bars that carried the weight of the heavy math along with the stroke; and while the bigger man would shift the weight by the mere sway and swing of the body, Old George had to shove every scytheful with an extra flip of the arm. He was red-haired and the hairs were only less thick on his arms (for he was seldom sleeved), than on his head. The fore-arms looked like the leg of a fox. He enjoyed the struggle. He was earning good money and keeping his place and the harvest was good. With the rest of the village he as thoroughly enjoyed a good harvest as his predecessors in days when a poor harvest meant a hungry winter and a tight belt. Even those who disliked the farmer they worked for rejoiced in the quality of the crops. It was the properest standard of the year's happiness.

The old sort of harvest survived (indeed it still survives) longer in countries of small holders, such as France and Ireland, than in this England of tenant farmers. I saw the opposite number of Old George cutting his harvest in France within sound of the guns. He too had the better peasant qualities in high power, though his ways were continental. He cut his crop not like Old George outwards and away from the standing straws, but inward, so that what he cut lay in a slope against the still uncut swathe. By this means his old wife, who followed close behind, could get her arms under the sheaf, lift it and bind it, without too low a stoop for her poor old back. She had to struggle, not to be left behind, for her husband was a famous mower, quite untiring (for rhythm alone gives the artist his endurance) and so smooth and

certain in action that speed follows as a necessary concomitant of style. Neighbours in describing the partnership paid the man the highest possible compliment when they said almost pityingly of his spouse *Elle avait de quoi*; elle avait de quoi: she had her work cut out to keep pace. He helped her to bind the last few sheaves, easing her tired back and paying himself a subtle compliment.

The excellence of the harvest was in one detail directly enjoyed by the labourer over and above the piece wages. In the cottage next to Old George's lived a family of ten. A widower with children had married a widow with children, so there were three families and Old George said one day that he hoped the woman would be "sporn to bring up her own." Her own, of course, were the two children of her first marriage. The mother and most of the children would go gleaning after harvest and return each with a bundle of corn tied very tight close to the ears, and a number of these quaintly pictorial bundles would be given for the church decoration at the harvest festival. The rest was stored within the low but spacious living-room of the cottage and stacked tight from floor to ceiling. The family, when gathered under its lee in a narrowed semicircle round the fireplace, suggested ewes and lambs in a shepherd's lambing pen. Presently the grain was sent to the local mill, long since dismembered, and the flour from those sheaves and no others exactly returned. It made a loaf neither brown nor white, but vellow, of a savour that, like the memory of the just,

"Smells sweet and blossoms in the dust."

They gave their snoods of corn for church decoration; they gave a loaf of gleaning bread to the Rector, for generosity and a love of giving were part and parcel of the make-up of these poor country folk, to whom an extra

shilling or the Squire's beef at Christmas was a notable event.

Old George was not professionally a mower: he was famous only for his skill with cows. He had an almost maternal instinct, in their regard. He knew they were going to be ill before they were ill: and had the healing hand. They mooed when they saw him—as a cow moos for her calf. He was at home in the low thatched shed. Treading, in the muck, in the warm smell of the beasts, he wished for no other dancing floor, no other platform. He had forgotten what schooling he had ever received and could neither read nor write; and therefore perhaps forgot nothing. On many occasions he was sent off to the nearest town—it was nine miles away—to do commissions for his master and was told what was wantedonce. If the list was as long as a cow's tail, it made no difference: he never forgot anything, not even if he descended from the pony trap on the way and drank a pint of beer, while the pony grazed on the broad margin of green grass at the edge of the road. The pony could afford to eat grass, for if the shrewd eye of his driver detected the least rise in the road (and in that flat country hills are scarcely perceptible) he allowed the pony to walk. There was no hurry. An hour and forty minutes wasn't bad going for the journey. He would tell them to give the pony a feed at the inn, while he did his shoppings, and if all went well, (a proviso common on his lips) he would be to home before dark.

Such men seemed too hardy and too free from self-pity to feel pain as other people think they feel it. Old George was thatching a rick one day in his later years and slipped; and one of the sharp stakes drove into his eye and totally destroyed it. We all know the sensitiveness of the eye, but "so small a thing tumultuous there" was

not one of Old George's quotations, which consisted wholly of proverbs with a line or two from the hymns or the Bible. Some of us went to see him after the surgeon had left; and made sympathetic enquiries. "No," he said, "I don't know as it hurt much; but I wish it had been the other eye. It's the better one that's gone"—and that was all. He had a green old age. He was quite happy to wander down and look at the cows and sit in his stiff arm-chair in the cottage and have a few visitors and be told the latest about "our children," to wit, the family of the master he had served for some forty years. He died happy, in his eighty-fourth year, and had a hundred pounds in the savings bank.

The village characters, except as they are spoiled by later thinking, leave an impression of the same simple and stable character as the landscape. Distinctest of all in this relationship with what older people call inanimate objects is the village schoolmaster, the loneliest and sternest feature in the landscape. Indeed he represented an intrusive stratum. There are no men like him now. They died with the new education. Goldsmith honoured his schoolmaster for preserving his wit even among the desert of sweet Auburn, where the children laughed at his jests "for many a jest had he." Old Melford, of the Midland hamlet, never jested but once, and that by accident. One would not have let him find out his slip for worlds. A pun would have hurt him as much as that fellow spirit among Oxford dons, to whom Lewis Carroll propounded a play upon words. "Why, sir," he said, after consideration, "it is a false analogy, a mere jest." The aberration in verbal humour happened in this way. Forgetful of Puritan morals, two small children came into school one Sunday morning with bunches of fresh violets in their hands, and the playful sight on such

a day stirred in the old man every Sabbatarian prejudice. The children were caught red-handed, as it were. The purple witness stank in his nostrils, and he would have been accursed in the eyes of his own conscience if he had not lifted up his voice in the cause of holiness. In a tone schooled to gruff and dignified severity, he rated those two little girls till they wept, for the sin which he labelled "violeting on the Sabbath." Spiritually he always breathed the atmosphere of the Old Testament; and if the sin of violating the Sabbath was not involved in the practice of violeting on Sunday-a word he never used, it was perhaps too sunny and forgiving for his creed—he had misread his Bible these sixty years. It was not in his school that the little girl, made to write out the creed for an inspector, told of one who "suffered under bunch of violets." This sweetening of the sound of "Pontius Pilate" by a law of sound conformable with Grimm's, was in sober fact the work of a village schoolgirl, but Melford never hurried a word or allowed indistinctness of belief or of expression to endanger the value of his teaching or the safety of his future. I speak as one of his pupils in the art of handwriting. Another of his pupils won an entrance scholarship at a public school, and thinking to please the old man the Rector, in telling the news, added "I dare say, Mr. Melford, he owes some of the success to you." But the labourer is worthy of his hire. Such grudging recognition as this was but half his due wages. "All to me, all to me," said the stern voice; and indeed, to learn pothooks of him, to copy maxims under his eye, was a liberal education. In the cleanliness that is next to godliness he was no proficient. If the nib was not to his liking—and it was a daily grief and trouble to him that so small a thing could spoil his smooth script -he would wipe it almost impatiently on the hank of white hair that touched his collar, so that the right-hand hank was permanently swarth, subdued to that he worked in, by the daily dyeing. If at times the load of ink was greater than he thought the nature of the wiper would carry, he used the inner lining of his coat, which thus over a small rectangle under the left flap, and there only maintained its original blackness. Four times in the week was he perfectly happy, when, standing up before the little congregation, he read the first and second lesson twice a Sunday. The advance of years intensified the sonorous severity of his utterance. It is agreeable with his manner and character that I can only remember the exact quality of his voice in association with the lessons —there are two—in which "thorns and briers" are the theme. Denunciation was his delight; and no power but his own voice could pass on the impression of prophetic wrath conveyed to his audience by his broadening of the vowels in "briers": it became a tremendous word in his mouth, a flaming sword, a scourge of scorpions. The epitome of an age of history was in his tall, ample figure reading the Old Testament to the small rustic congregation in a church that still speaks after seven hundred years the genius of worship in the lofty roof, the masterful tower and the aspiring arches. From all the slopes of the surrounding fields you see it "bosomed high in tufted trees "-circling elms that appeal to the infinite as strongly as the Gothic arches within. So stands the church in the midst of a little population of 180 people all told, and they ebb slowly away in numbers and, perhaps, in zeal.

The last time I saw the old man—at any rate, this is the last impression of him left—he was walking away from me, one hand resting across the small of his back, down the lane, where he took his constitutional with the regularity of a Kant. I see him as a tree walking. He belonged to the lane as the elm belonged to the pond. But even trees fall. He was afterwards found in his chair asleep, dead. His wife, good woman, who had known "the quality" in her time, survived him, but without his prop her mind was not strong enough to bear her weight of years. With them an age departed. Will the life of the village, the character of the villagers, be as worth remembering in the age that begins?

The slow quietude of their life and their continuous touch with realities have bred wisdom in the true countrymen, however humble and limited their life, and a singular perfection in manners. Their knowledge of character is quick and instinctive; and gives them an inherent tact, apparent perhaps only to those who live among them. I remember some very raw and raucous trippers from overseas on a visit to an antique village, asking sudden abrupt questions, but taking little or no human notice of the persons they interrogated. When finally they made off, a labourer who had answered some of their silly questions looked sadly at their retreating backs and said, like a reformer regretting the backwardness of civilisation, "They are so unmannerly." There was a protesting surprise in his emphasis on the word. He spoke not in anger but in melancholy wonder; and he spoke in beautiful English. You cannot spend any part of day with such countrymen and not be put into touch with a wise reality or two. Compared with other people in less natural places they are like Mcredith's Wedded Woman. They have

"Struck the roots which meet the fires Beneath, and bind us fast with Earth, to know The strength of her desires, The sternness of her woe." Yet even such a comparison is too complicated. Their quality lies in the directness of their simplicity.

The villagers, who as a rule are incredibly free from jealousy, are as proud of the country house or great park, as if it were a personal possession. Indeed any picture of an English village ought to include the Manor House, so to call it, for it absorbs into itself much that is best in English scenery. Indeed I have heard an agricultural labourer say so, in his own idiom. Its garden has space for the finest plant there is, to wit the forest tree, which cannot be integral to the small garden. Trees convert the grassfield of the Park into a bit of scenery that may claim the virtues of field and wood and garden, all three. You find a curious and rather forlorn likeness to it in Australia, where the woodland and brush trees have been ring-barked to the end of their destruction and that cattle may be introduced as soon as the dying boughs let in the light and persuade the grasses of that dry continent to take their place. The likeness leapt to my eye again and again in travelling about the back blocks though the Australian scene was made melancholy by the grey dead trunks and the loneliness, while the English Park, even when neglected and full of stag-headed oaks and ill-forested elms, is warm and homely even in winter when only the likeness appears. Where there is no country house, the glebe often takes the place of the park. One such glebe, of which I have a long and fond memory, is in fact the relic of the domain of a great house that fell into ruin and began to disappear quite four hundred years ago.

When you come to know these southern villages well, then and then only you begin to discover how old they are. Though the social life has revived greatly since the War, with better lighting, better clubs, with Women's Institutes and the influence of War comradeship, many of the villages have the intrinsic beauty of ruins. They were populous and busy places before the Reformation, when the favourite playing fields were alongside the church, and Sunday afternoon was the chief hour of recreation. The churches themselves were not only monuments of religious zeal; they were made big to seat a big congregation. They were never cenotaphs. If you walk from the chapel on the hill in Steeple Gidding to the great church in the village on the brook, you may pass through two splendid avenues now leading no whither. Those pits in the field, one above the other, were once fishponds, invaluable for Friday's meals. The deserted brick-yard now a favourite haunt of coot and heron—and of snipe—was a busy mine in comparatively recent times, though not in memory: but when you reach the spacious glebe you may read the characters written by a much earlier generation. Rich grass has grown over the foundations of houses that were built before the oldest of the tall elms was big enough for a wren, much less for a rook, to nest in. The square angled moat was dug not later than the days of Henry VIII. A bigger and busier population was housed round the church as its monuments indicate, one of them incidentally bearing witness to the size of the families in the larger houses.

Such signs of populous antiquity astonished even some of the residents of old Buckinghamshire villages when a sort of pictorial survey was made of the Penn county to the end of persuading the world that the place where Milton and Gray sang and where the founder of Pennsylvania was born, was worth preservation. It has been written by that eminent historian, H. A. L. Fisher: "The earliest English Atlas—that of Saxton—shows how

thickly populated was our countryside in the reign of Queen Elizabeth. Our smallest villages have pedigrees which put the oldest families to shame. So ancient are some of our rustic settlements that they seem to have grown into the landscape and to have become an indistinguishable part of surrounding nature. Indeed it is difficult to conjure up this picture of English country without thinking at the same time of our old villages and of the cottage gardens with their

'gold dusted snapdragon, Sweet William with its homely cottage smell And stocks in fragrant blow'

which glow above the powdery country roads under the midsummer sky. The unique and incommunicable beauty of the English landscape constitutes for most Englishmen the strongest of the ties that bind them to their country."

That is true; and one reason why the influence and sense of the landscape is incommunicable is that it has been carved by man. The English have made the landscape at least in southern England, and on this account it is a very different thing, in essence as in degree, from Snowdonia or the Lakes or such magnificent but less homely, less human glories as take travellers to Switzerland or the Rockies. The characters of the manuscript matter much more than the vellum on which they are written.

These lovely villages express in their scenic form their spiritual virtue. The soul and the body are inseparable; the preservation of them—from pink roofs and ribbon development as well as from more essential dangers—has become a national cry within the last few years. The chief reason for saving them is that they are the

only cure for the worst malady of the times. Even as you enter the village pale the restlessness of the towns drops from you "like the needles shaken from out the gusty pine"; and to many of us who were born and bred in the deep, deep country, it is to this hospitality of the village that all should go whensoever we wish to "reap the harvest of a quiet eye"; and is any harvest better worth while?

It is an English parable that many of the loveliest villages have grown up in the least lovely places and counties, such as Essex and Huntingdon. The headquarters of the art of village building are the Cotswold hills of Gloucester, Worcester and Oxford; and though no countryman could call the Wolds ugly, many townsmen have no doubt at all that they are grim, dull and even repellent. They are at any rate, as we shall all agree, as stark as their villages are homely. scarcely be disputed that the most perfect village in the world architecturally, though not in all other qualities, is Chipping Campden in the Cotswolds; and the chief reason lies in the selection of native material for the expression of native art. That street feels like the vista of an old wood. It grew from native seed and its stone roofs have roots in the ground. In Burford some buildings are medieval, some Tudor, some Jacobean, some Georgian. They agree together nevertheless and are as flawlessly sequent as to-day and to-morrow; and the generous village sent stone from its quarry to flower in more ambitious splendour by the Isis in Oxford. Even the Reformation failed to break the continuity either of the visible or of the hidden life. The bells from the church tower vibrate in tune with the bells of the Down sheep, and the shepherd is in church while he watches his Down sheep under the roof of stars. Surely the people

THATCHING AN ESSEX COTTAGE

who made such places must have attained however unconsciously a rare harmony of soul in accord with the land and clime they live in. A few years ago-not more than four centuries—three quarters of the land of England was waste. Then the people began to cut slips off the thorns and briars of their Eden and stuck them into the ground, along side a ditch "a yard deep, two feet across the top and one foot at the bottom." The kindly ground and clime lured root and buds from these quicks and dog roses—no longer merely thorns and briars; the birds fed, roosted and nested in their protection, sowing hips and haws, acorns and hazel nuts, and the wind blew unseen battalions of seed against the thickening barrier. The seeds stopped where the birds stopped; the English hedgerow was built; and presently the old wastes were like garden closes, as friendly as an open fire in a hospitable room. Waste land became field or paddock. They set these thorns too along side the sheep path and cattle track that wound lazily up to the homestead: and sometimes in longer, straighter lines on either side the line of abundant daisies that always grow thickest where the primeval roads were trodden along the ridges.

The villages begin to revive and enjoy a livelier social life and have not lost their old charm; but there are threats. What if the English village should vanish or be ruined? What a fall would be there, my countrymen! I have seen one clean vanish: and the tale of it has been told.

Three miles outside Marlborough, the lowland begins to rise to a famous down. A few years ago a charming and prosperous village stood on the edge, and commanded a view of a wide prospect of corn and cultivated land, all of it producing its quota of food and supporting a vigorous population. In the village or hamlet built in

view of this prospect were two good farmhouses, a school, a chapel, and fourteen cottages; as many as forty-four children attended the school. The land in the immediate neighbourhood was known in those days-a generation ago-as light arable, and the principal crop was corn. To-day the hamlet is no more seen. It has clean vanished. One rough shepherd and his dog, who live elsewhere, represent the whole extinct hamlet. The village, which may be called Snape, is like Flers or any one of those French villages that felt the full force of war bombardment. You might put up such a notice as was put up on the Somme: "Here was Snape." "Troja fuit." That last phrase—" Troy was "—has been quoted as one of the most pathetic phrases in the works of Virgil, that great Roman patriotic poet. Is it possible that we find no pathos, that we do not so much as take interest in the disappearance of our own home hamlets? They matter to us at least as much as Troy mattered to Asia Minor; indeed, the loss is much more fit for a national lament than either Flers or Troy. The French villages are coming back to life. So in some regards are English villages; but such disappearances can be paralleled in other countries.

What of the place during and since its end? especially the persons, if they are in the plural, who have succeeded the inhabitants of the fourteen cottages and the two farmhouses. For the question is not local, but national.

The penultimate inhabitants were two old ladies and one shepherd. Then only the shepherd was left. At last this lonely person found another house some miles away, and no one remained to mark the place or prevent the collapse of the last house. You can now scarcely trace the hamlet; the chapel and school and most of the cottages are undiscoverable. Bits of the farmhouses, the highest

perhaps a yard above the ground, and the old bases of the corn-ricks can be traced. One house would be distinct enough, if it were not swallowed up in thorns and briars. The fate of the place is the fate of the Garden of Eden. The hamlet is a much more pitiful sight than some deserted mining-camp such as one may see in Australia. When a vein of precious metal that gave men work and wealth has petered out, we must accept the fact and go elsewhere. But in Wiltshire, by Marlborough, the vein has not been worked out. The soil is as good as ever it was. It should produce more wealth, not less, since tools and apparatus and transport have all been improved. And such revival is perhaps coming. Other villages in other parts, some of them still proper objects of pilgrimage, have dwindled sadly, though they are in no danger of extinction. Little Gidding in Huntingdonshire is one: with Steeple Gidding and Great Gidding, as its neighbours once rightly so called it. These are some of the facts of its recent history.

A delightful farm was bought for £22 an acre in 1777 by a neighbouring landowner. The neighbourhood is sufficiently well known in literature, for near by was the home of Nicholas Ferrar and his community. By the chapel on the hill is the grave of Mary Collett, whom J. H. Shorthouse made famous in John Inglesant. Down the southern slope of the farms, two fine avenues led to the crossing of the little brook; and rectilineal hollows that were once fish ponds, indicate how populous the district was before the Reformation; and how various the forms of food production. Let this older history of a prosperous era look after itself; sufficient unto the day is the evil thereof, and more recent annals suffice for the contrast.

After the purchase of the adjacent farms in 1777, a

small fortune was spent in the erection of cottages, outbuildings, and a fuller equipment for the farmhouse. The excellence and cost are announced by the present solidity of the buildings. These farms (and many others near them) suffered severely in the depression of the early 'eighties, and the returns began to reach vanishing point. The revival was slow, and the better part of the land, with its cottages and buildings included, was sold in 1915 for no more than £12 an acre. This amount, as the purchaser recognised, would not pay for the money spent on buildings alone erected during the developments begun in 1777. He felt sure that this price would rise, but the opposite happened; and some years later the land and buildings were again sold at a loss, this time at the rate of £4 10s. an acre. It would be a generous estimate to conclude that the money represents half the value of the buildings.

Let no one imagine that the land is poor in itself. It is good land. People once boasted that you could not want better "bean and wheat land." The grass is good and rich. Heavy crops are still grown on the few arable acres left. The oak trees of one side of the old avenue are fine and large. Even fruit trees flourish. The railway is remote, six miles away; but the roads are good. The Great North Road itself is only three miles away. Electric cables cross the slope, and the total distance from London, by far the greatest market in the world, is sixtyfive miles. The fields can produce in excellent quality and without undue labour or cost the foods that come to London from 12,000 miles away, as well as from nearer Europe; it is good dairy country, good poultry country, good wheat and bean country, and moderately good fruit country.

The village where the Ferrars flourished is called Little,

to distinguish it from the next village, vaingloriously called Great. This "Great" village a generation ago boasted over 800 inhabitants, most of them engaged directly or indirectly in husbandry. To-day its population is just over 200. In other words, three-quarters of the people have vanished. The fortune of this village is no exception. Look down at that magnificent thirteenthcentury church with its battlemented tower in the plain below. It would be half-empty, if the whole hamlet, man, woman and child, attended service there. They would scarcely number a congregation of a hundred souls, but if we wish to go back into history, the foundations of houses, great and many, are everywhere traceable. The property, so-called, consists of about 2,000 acres of land-of good land. Not long since I saw a moderate field of seed clover sold as it stood for f.1,000, and the glebe which is grass, let for 73s. an acre. One of the farmhouses is a magnificent example of Elizabethan masonry. The walls are thick enough to provide inglenooks and roomy seats within their breadth. There are four other farmhouses of sufficient comfort and solidity, with good outbuildings. The cottages are very picturesque, and on the whole roomy and comfortable. The estimated value of the whole of the 2,000 acres, of the Elizabethan manor-farm and other farmhouses, of the cottages and the rest, is not more than £4 an acre. With its ups and downs of fortune the character of these villages keeps true to the type. "Yarrow revisited" suggested some disquieting thoughts, but the inspiration of the scene is as of old. I walk to the two old hollow walnut trees in the great glebe and tap the trunk. Out flies a white barn owl as it flew out a generation ago when its ancestors hatched a hen's egg inserted in the nest by an experimental schoolboy. The villagers still gather in autumn and "bash" the boughs with long sticks and the green-black walnuts, protectively covered by the green-black leaves, which bashers fail to collect are carried off by the rooks before the men are out of sight. Jackdaws still prefer the church to the walnut.

> The daw's not reckoned a religious bird Because he keeps a cawing from the steeple.

But he is faithful to the old tower and still drops every stick, leaving it neglected on the ground, if it catches at all on his first effort to penetrate the narrow slits in the belfry. Spinney, hedge-row, brook, moat, church, barn, farmhouse and cottage, path and stile; green fields and brown fields; young wheat and old trees; bird and mammal and insect—the place is what it was, an English home village whose likeness you will hardly find in all the round world. I have sometimes thought that the nearest parallel lies not in Europe or America but in the native villages of Fiji. But Ewelme, Hemingford Gray, Yattendon, Weobly, Finchingfield, the Bourtons, Polperro and scores of humble hamlets, such as these, rising in plain and simple country scenes, are altogether too English for any comparison whatever. And what homely poetic names! Of them all, just for its suggestive sound, I would put first Maidens and Potters Crouch in Hertfordshire and Freefolk—a lovely place—in Hampshire.

The English village sweetens England and English life as the salt mill, in the fairy story, salts the sea. Town people feel this and country people know it as well. A townsman long since turned countryman, who has the zeal of the convert and a knowledge of both worlds asked a number of people to say in *The Countryman*—a green quarterly full of green thoughts—why they chose to live in the country. It was like asking a man why he

ate and drank: and the question proved difficult to answer because you cannot go behind an axiom and argue about its reasonableness. My answer was something like this: I lived as a boy in the deep country, nine miles from a town or railway and five miles (as Sydney Smith used to lament) from a lemon. Our thoughts and ways were country thoughts and ways; and I do not think any of us ever came near to feeling that any moment was dull. There was always a choice of many things to do. When a man is so bred, life loses half its meaning if he is long in a town, however much he may enjoy the town and desire to visit it. The daily touch with the year, with the longer days and shorter days, with the seasons and their weather, with the calendar marked by plant, insect, bird, man, farm rotation and what not becomes almost a spiritual or at least a sensuous necessity. In the town the between-times always touch boredom. You must try to achieve happiness by a succession of pleasure or duties, and the method is as mistaken as attempting to maintain a continuous light by striking matches. In the country the between-times are the really satisfying times, the glow of the fires when the flames are over or to come. You dislike to go indoors even in winter. You want to hear the blackbirds' hilarious cackle before he goes to roost. You want to move, as well as hear and see and smell.

I could of course give scores of little concrete reasons why I live in the country, why I should feel cut off from "the free play of life" (which is the best definition of happiness) when prisoned among streets and houses; but the inner reason for preferring the country is beyond particular detail and compelling; no comparison is so much as challenged. Some may call the reason mystic, but that cannot be helped: it is the real reason, and it is

this, urban things are felt to be secondary and country things primal. The happy countryman is quite definitely conscious of a communion with the world about him. Wordsworth puts the feeling better than anyone else in literature—in Tintern Abbey and the Prelude; but we all feel what he felt in our minor degrees. The country people, not least the agricultural labourers, have a deeper and better sense of the realities of life and death as of the essentials of behaviour. You may desire periods in the town where wits are quicker, amusements more various, the multitude of people more stirring and in some ways life freer from the bonds of criticism. In the country you must do as countrymen do, or you are as much out of place as a pink tiled bungalow among thatched cottages. In the town you may do exactly as you please and no one that matters is a penny the wiser. Yet you touch a higher liberty when you are alone on a hill where (as a dweller in Idbury once said) there is "plenty of place for the moon" than in the neighbourhood of any artificial light. "It is good for us to be here "-that is the heart of the feeling. If all this is too general let me come to more definite ideas. I asked one who shares with me this unquestioned preference for the country, why in one word she chose the country. The answer was "Quiet." I once put up for the night a resident from the Old Kent Road, but he slept badly: the noise of the brook disturbed him. What I fear for the English people is that like this Londoner they may come to prefer the tumult of mechanical noises before the pleasant voice of bird or water; and more intrinsically will dislike what is individual, natural, distinct and teal.

The Gods approve
The depth and not the turnult of the soul.



IN THE VALLEY OF THE RIVER FOWEY, CORNWALL

And the country stands for depth as the town for tumult. If I may quote myself (from *The Happy Village*): modern man "lives from hand to mouth, secondary and artificial things make strange noises in his ears. He is himself like a running motor before the cogs are engaged, is ready for progress but as yet makes none. The engine of his elaborate and mechanised civilisation moves with gusto, but to no end. A busy and aimless generation has learnt to control all forces but the tumult of its own unacknowledged soul. And this confusion of heart and brain—this malaise—is loudest in the town."

In the country recreation is re-creation. You make up your spiritual losses whenever you have time to "stand and stare." Half the tragedy of unemployment is due to the urbanised minds of the unemployed. The establishment of "recreational centres"—which is recognised as an outstanding need—is far more elaborate and costly than it should be because the happy countryman's means of recreation are not understood and can with difficulty be brought home to the urban dweller who has suffered from a mechanical employment.

A particular reason for enjoying a country life is that the village may be made the best of all social units. In spite of farmers' narrowness, tradesmen's snobbery, the greed of small cottage proprietors and the jealousies of religious sects village dwellers "consent to a mutual relation" in a natural manner belonging to no other social unit of which I have any knowledge; and the chief reason is that they are interested in real things and elemental things. How wise a man is the agricultural labourer! Merely for his wisdom the nation should endow him with a good home and kill the cruelty of the dark, damp room, the beastly sanitation and the high rent. Even at the worst he need not utter the regret,

expressed (by the best verb in literature) in Hood's "Song of the Shirt." The swallows do not "twit him with the spring." However little his conscious appreciation, he owes to their blue wings and happy twitter some fragment of that "deep power of joy" in which Wordsworth—and Lord Grey—found the source of all that was best in life. Such things enable man to recognise "a grandeur in the beatings of the heart." "Such intercourse was mine" said Wordsworth as he skated in winter on Westmorland waters.

'Twas mine among the fields both day and night And by the waters, all the summer long, And by the frosty season when the sun Was set and, visible for many a mile, The cottage windows through the twilight played.



JANUARY

A Midland Belfry—Three Birds—Favourite Foods—The Making of Rime—The Persuasion of Frost—To Eat or to Sleep—Winter Larders—The New Farm—Ice

Ι.

HE most English scene I know lies round about a high, square tower, built on a clay hill in the Midlands. The peal of bells has just been restored, and when at Christmas they ring out above the encircling trees they carry an inordinate distance. You may hear the after-vibration of the greatest of the four bells up in the fox covert, while school-children gather Christmas decorations; and more than ever the rides across it become in our eyes the aisles or cloisters of a sanctuary, as if the wood, too, were a church, for the hunt is clean forgotten. The tree mosses grow in quantity at the foot of the trees, and make a beautiful lining for the windows of the church. If decoration is toward, especially at Easter, when bunches of primroses divide the moss edging along the window-sills, the green and yellow freshness preaches the resurgent year. In many years primroses could be picked for Christmas, but few and pale and short in the stalk.

It is a liberal education in England to climb the narrow, spiral staircase up to the rooms above, first a square space empty but for the ropes of the bells, and then up among the immense oak beams from which the bells hang, and at last up a rather precarious ladder to the very top of the tower. What a gracious and a spacious view, though

the little county is reckoned one of the less lovely. You are above the line of the rooks' nests in the elms, and remember the day when a brown squirrel was seen inspecting the nests, and a great tit observed to build in the base of one, and a single isolated nest was robbed and torn up again and again. The hamlet, with its low thatched cottages, looks very humble. How comes itexcept from a great mystic sense of beauty in the English people—that so splendid a tower, so triumphant a west arch, were built for so small a flock? The comparison between brook and bridge suggests a like question. The pillars of the bridge, by which the villagers cross to the church, would serve for a defensive keep. They are a fortress, and for the glory of their antique form and solidity find a place in the classic survey of our bridges. Sometimes the bridge crosses only a dry corridor where the water plantain grows tall and unbent and the forgetme-nots spread like grass, and the cows-and dragonflies -have some ado to find a drop of moisture in a few deep foot-marks. Doubtless the village knew more spacious days. You see from your high tower, bosomed in trees, as Milton pictured, a level space half surrounded by a moat now given up wholly to immense eels and a number of moor-hen. The very green glebe, well stocked with milch cows, has hollows and hillocks that betoken old foundations. When the English language was growing into its own and shaking off the foreign sounds in the monasteries round about the valley of the Nene-that nursery of English as the Avon of England-more and greater people lived in the hamlet; but then, too, when the neighbouring Fens were fens indeed, and even the wolf found harbourage, the English village hung round the church with the same local and spiritual affections as to-day. Some interest in natural history helps

to restore memory of the old place. There is a heron, looking like some "native companion" of Australia, feeding apparently at a sheep trough, but he soon flies off deliberately and yet quickly to the more congenial brook, where, in spite of droughts, fish still survive. You would swear that some of them must have "aestivated" beneath the mud.

Midwinter is the time when, for all the clay and slush and foul ways, this country is most glorious in recollection. The boughs of the "Huntingdonshire oaks" are very bare. The children collect for mere curiosity leaves that have lost all their substance except the symmetry of the ribs and look like little trees themselves. You may see the floor of the several spinneys almost white with the crackling stems of the kexes. The tree tops through which you see the low, white farmhouse and its white railing show a delicacy of form and a filigree pattern which always excel in beauty the leafy domes, at any rate for those who have travelled in overseas lands, where all the trees are evergreen. You may, perhaps, find in the half-neglected little garden the dusky geranium, the greater celandine, and the heartsease that have survived from cultivated gardens of forgotten centuries; and the top of the huge yew reminds us that it is a forest tree, not a hedge plant. How the thrushes, especially the missels—known in the village as "the squorking thrush" -raid the berries, that now gleam among the wide boughs, only less conspicuously than the coral berries on the pistillate hollies awaiting the arrival of the greedier fieldfares from over the North Sea!

How homely and historic the general scene. You may read at once the tale of its centuries of continuity. Trees are everywhere grown for no other purpose than the delight of the folk in their contours. All the land is

parcelled by hedgerows into the likeness of garden closes, some hedges so high that, like the trees, they filter the dove and fawn-coloured hues of our twilight winter. The pucker, that is the bed of the brook, edges two of the spinneys, much more populous with life than the hamlet, with rabbit and squirrel and mouse; and the nearer one holds or used to hold a number of tunnelled stools of old coppice wood, mossed over, and peculiarly attractive to hibernating hedgehogs. A peaceful intimacy, a congruent mood, envelops the village and all about it; and as you take from the tower a last look before the bells begin their brave jangle you see spires and other towers rising above other villages, each bound into its individual unity by the mere quality of being English.

2.

This is a simple tale about three birds of different tribes met during one winter, in Norfolk, in Herts and in Wiltshire. They have a common quality in their appreciation of the service rendered them by their human neighbours and the winter tameness of birds, sharply contrasted with their spring shyness. They were all very tame, and learnt that what looks dangerous to instinct may prove to be a way of comfort and decent safety. Perhaps such a change of view increases in the tribe of birds, as sanctuaries multiply beyond numbers, for every garden is a sanctuary; and the back of a line of suburban houses may claim some virtues common to itself, and such a line of full-dress sanctuaries as the Norfolk Naturalists' Trust is drawing along the coast of North-West Norfolk and behind it.

One is accustomed to the tameness of birds at the famous Norfolk sanctuaries: at Scolt Head or Alderfen,

or Cley, or Hickling, or Blakeney, but not on a field level and spacious and bare, on which a brave landowner is practising the art and craft of mechanical farming. A tractor—less noisy than tractors used to be, for it is furnished with rubber and air-stuffed wheels—was pulling with delightful ease a three-furrowed plough through the light sandy soil. Behind it flocked a host of gulls, continually leap-frogging one another in the wake; and so hot was the competition for evicted worms and less beneficial grubs that they were in danger of being sprinkled by earth from the up-turned furrows as their seaside cousins are sprayed by the "white horses" of the unharvested sea. As the driver of the tractor, who has the observant eye of the true countryman, turned at the headland to repeat his journey he saw two white triangles protruding from the outside of his latest three furrows, and knew them to be the points of the wings of a black-headed gull. The head was half in and half out, in a ludicrous likeness to a chick coming out of an egg or like Milton's ingenuous picture of lions "pawing to be free" at the Creation. He often gets down from his tractor without stopping it. It seems dowered with the power of automatic alignment; and released the gull from its burial. The bird just pinched his finger mildly once with his opened beak, but otherwise showed neither fear nor hostility. The ploughman tossed it up, as a boy tosses up a toy balloon, and the gull flew easily, and presently returned to the game.

The incident, I am assured, has happened more than once. The mould board throws the light soil over the too eager camp-followers; and though it usually does no more than pelt them, will, on occasion, bury them completely. The thing happens yet more often with the eight-furrowed plough that you now see in East Anglia

and he shows small sign of nervousness. The cock wren, when the building mania is on him, will almost build in your hat. Nevertheless, he seldom comes into the house, except in great stress of weather, and rarely visits even the bird table. Happily there are exceptions. Into a lovely house in Wiltshire (whose owner confesses to "house-pride") a wren has been making its way daily, however small the slit in the open window. It spends most of its time in slipping along the skirting boards, so quickly and neatly that you may scarcely be sure whether it is running or flying. It seems that even in the best-kept house there are more bits of flies, more disjecta membra, than on the untidiest tree trunk; and such almost microscopic atoms are the favourite food of the wren. His long, slender beak has small dealing with such gross and tough objects as a grass seed or as the bits of bread or porridge that we put out on our tables. If on its attempted retreat it finds the window shut it utters a sharp cry at intervals until one of its servants opens the offending pane.

3.

As we motored through Cambridgeshire on the 10th January, the farmers were still carting their roots of sugar to the factories, or piling them beside the road for other transport; and this indicates that the "hundred days' campaign," sometimes now spoken of in England as long ago in France, often continues beyond its normal term, and incidentally has added much to the vividness as to the economics of village life. Some of the roots must have been carted, you would say, during the gales which, though the winds were westerly, swept with no little force across the flat plains of East

Anglia. It is a region of screens; but these are partial and planted, it must be confessed, much more for the sake of high-flying game than as protection for the farm or the user of the road. Now several sugar beets had fallen on the road, just at the end of one of these edgings of fir, by the boundary of a big and famous estate. Perhaps the winds had gathered in a gust at the spot. At any rate the split roots were many, and they served as a rare attraction for the denizens of the grove.

Those who drove cars along the road not only disturbed a feast: they were in continual danger of running down the feasters. Pheasants are naturally tame birds (till they get up in the air, when they fly faster than 90 per cent. of our wild birds); and they ran out from the trees in numbers, to the enjoyment of the fallen beet, made soft and manageable by passing wheels. Personally, I had never before seen them indulging in this particular food; but they caroused with such heedless intensity, like wasps and earwigs in a rotten apple, that they would scarcely consent to dodge the wheels. Now a famous statesman once got into trouble with the cartoonists and other humorists for averring that pheasants eat man-golds. They do eat mangolds, as I have seen on Fen farms, but only very little bits. The great coarse bulbous root is too hard for them, and perhaps too insipid. They have difficulty in attacking a growing beet, for, like a parsnip, its base does not rise above the surface; but a crushed beet in the road is a very different problem in dietetics.

All sorts of animals like sugary stuff; and the suns of 1933 while they minished the size and bulk of the beets converted a rare proportion of their pulp to sugar. In some a whole quarter of the contents was neat sugar. The pheasants were confessing to much the same canon

of taste as the rats, tits, and ants that selected the dessert apples for their table. The birds and insects ate them on the tree as soon as the acid began to be transformed by maturing time and the sun into sugar; and the rats, foraging in the store-room, sniffed scornfully at Bramley's and Lane's Prince Albert to concentrate on the Cox's on the remotest shelf. The percentage of sugar was the criterion of all of them: rat, ant, and bird.

How each of these very different creatures comes to know that the Cox is the sweetest apple no one perhaps knows for certain. The mammals probably rely on scent. If you watch a rat at close quarters the gesture that fixes your attention is the continually twitching nose. The animal seems to be trying hard all the time to smell something, very much like a dog in a motor-car which sniffs the rushing air with as obvious pleasure in the various bouquets as a judge of good wine. They can quite certainly detect the smell of a seed or bulb that is well covered with earth. It is a not uncommon experience for research workers in horticulture to find neat holes scratched above certain special precious varieties of seed, while all the commoner are untouched. The experts in savour are both mice and rats. They possess the quality of nose of the more obviously gifted pigs of the New Forest, which can detect the scent of that insidious fungus, the truffle, though it is hidden among deepburrowing roots. How acutely birds can smell we scarcely know; but they arrive at their conclusions, I think, by trial and error, aided by an aesthetic perception for colour. The red Cox is attacked before the tawny, as the source red currant before the white. After their artless manner they peck idly at this thing and that till their taste tells them which is good. As for insects, their instincts are so peculiar, the message from the ganglionic

centres so different from the dull information supplied by the single brain that there is no arguing: "the rest may reason; and welcome!" They "know."

Can it be that the quality of the fruit is possessed also by the rest of the plant, as a wild currant smells of wild currant in all parts, or as the trunk of a lilac bush harbours a lilac streak? The question arises out of personal suffering. I planted this winter a number of young fruit trees. Three of the best sorts—and those almost the nearest to the house, where many workmen were engaged—were devoured by hares (which were not numerous in the neighbourhood) before the wire guards could be put up. In general, rabbits and hares—so it seems to me are guided by tissue and succulence. Dusty cork-like stuff is safe. Any smooth, clean bark—and this is, of course, juicier—is a sure bait; and for this reason, perhaps, the most highly favoured species, in the wild, are ash and holly, and in the garden the young apple-tree, usually attacked where it is youngest, that is, as high as the hare or rabbit can reach

4.

Our winter weather is often called "phenomenal," and now and again that strange Graecism carries its proper meaning. The country becomes under stress of weather peculiarly rich in phenomena, in curious and sometimes beautiful appearances, or, if we must be Greek, epiphanies. Much of the frost has been hoar or rime; and this always means the conjunction of fog or mist or haze—words that our experts in weather distinguish by nice definitions—with frost and, as a rule, with those delicacies of atmosphere that have induced a host of observers to connect mist with a mystery. Omnia

exeunt in mysterium: how should not the phrase tumble into the mind when you see a bird overhead—or, for that matter, a cow in the meadow—loom for a moment big beyond truth and then fade into soft gloom. The trees are like giants walking, endowed with the motion of the passer-by. Sight and sound are more than muffled: they are changed. The rumble of a distant car suggests a rushing of wings, and the call of a scattered covey is almost a human wail.

London often suffers from a roof of fog, a pall between earth and heaven. The best of the country mists of late have been on the ground and from it, thinning in quick, if regular, gradation towards the upper air, so that the sunshine was visible in a green and silver sky, while the groundlings groped and fumbled in a confused and colourless medium. Some of the effects were very strange. You could see clearly the tops of the trees, the delicate fan of the tracery was spread out against the dancing light while the solid column of the trunk was clean invisible. I have seen the sails of a windmill so appear, like a wheel flying on its own wings, in the Fen country—the effects are yet stranger on the sea. Returning from America with a large convoy of ships in 1918, some of the American soldiers who had never seen the sea before were both terrified and amazed by the spectacle of all the other ships of the convoy save their own slowly and steadily sinking into the Atlantic: the hulls vanished. then the decks, then the masts. The company of Scottish church-goers who stopped on the hillside and watched the impossible spectacle of all the great ships settling into the waters of Scapa Flow were not more astonished. The Atlantic illusion was due, of course, solely to the sudden cooling of the successive layers of air over the surface of the sea, and they rose high enough to swallow

the ships completely. A yet stranger illusion has been acted before sailors in the China Sea. They saw a low island sink slowly before their eyes, and as slowly emerge cleared of house and inhabitant. It was not till the ship rocked unbelievably that they realised the presence of an immense tidal surge. To call it a tidal wave is to belittle the phenomenon unduly.

The English mist of the opening year was followed by a hoar-frost, both unusual in structure and unusually lovely. Every edge was silvered; and the crystals along the twigs were all built up along the southern edge, not on the top. This was so general that if you looked northwards along a trim hedge, its wall was white; if you looked southwards it was dark with only broken points of white. Every evergreen leaf, of holly in the hedge, as of laurel in the garden, had what florists call a picotee edge. In some of the hollies, where the spikes came forward to meet each other, the frost had bridged the short gap, as if a spider's web had been stretched across and crystallised. What remnants there were of real spiders' webs or gossamers—and they were more frequent than you had suspected—were all completely coated with rime. They suggested necklaces of seed pearls of impossible minuteness. Some of the fringes were made up of crystal piled upon crystal; and you could easily imagine the glory of the inner pattern that has so enthralled some of the scientists that they have spent half a lifetime in collecting and photographing patterns. These are almost infinite, though nearly all are founded on the form of a six-rayed star. Some suggest a Tudor rose, some a starfish, some a collar-stud; and as you looked at these hoar-frost crystals singly and closely they looked each like a mimic pagoda.

The pearls of the mist, out of which these crystals are

compounded, differ from raindrops, very much as clay differs from sand. Clay—itself often the cause of mist is made of the finest particles and sand of the biggest. Some three thousand and more of these pearls might be set side by side on a linear inch; and their fineness gives the building frost its chance of the nice work that silvers every blade and twig and projection of bark; indeed, every protruding sod and stone. When the mist falls upon them the flocking birds come closer together; and partridges may so hug one another's presence that a dishcloth would conceal a covey. And how slowly they will fly. You would not think so heavy a bird could keep in the air at such a pedestrian pace. It is a greater marvel how the duck, one of the heaviest birds that flies in relation to its bulk, manages to come down on to the ice without damage. Like an airplane, they must keep up their pace till they almost touch the solid surface, but, unlike most mammals, including our dogs, they appear to understand this strangely hardened surface, and though the manœuvre is a little awkward, obviously difficult, and laughable to the observer, they succeed in sliding along without damage to their feet. They walk over it with ease. A hen, on the other hand, if it happens to stray on to smooth ice, is utterly helpless and entirely frightened. Moor-hen on some streams are hardly less helpless. The level has fallen rapidly and left the thinnest "cat ice" at the edges, to the despair even of the voles. The surface is patterned and broken by their vagrant journeys.

5.

Walking one day in such weather, along a quiet hedgerow, I heard a wintry chuckle overhead, and, looking up saw, on an elm bough close overhead, a

bird of a slate-blue tint, standing so still that he seemed as lifeless as a stuffed bird in a museum; and I could study his plumage as easily, until he flew off in sluggish flight to the nearby dell-hole, where the sun had melted the snow and the world was livelier. He was the first individual fieldfare I had watched, though little gangs had been heard and seen about the fields. In his demeanour, as in the fact of his presence, he expressed very winter. This is one of the few winter visitors recognised by the villagers. The "old fellfares" are as familiar almost as their cousin the squorking thrush. This thrush, whose song no English dweller has ever heard, nor his nest seen, was seeking escape from winter in our southern fields. So it happened, as often, that one encounter with bird, or beast, or even bout of weather—could put a new complexion on the year; and our island became, on a sudden, an expansion of the Arctic circle, or a suburb of tropical Africa.

In the ordinary inland English places we can infer winter from the presence and behaviour of this animal and that. As soon as those vaporous shocks and stacks of cloud pile up, and grow luminous with an orange light peculiar to their sort, and the north-west wind wails overhead, we foretaste more than the snow and frost, which every villager expects. We look forward to the flocks of plover descending on the eighteen-acre glebe, to the host of finches—hawfinch and northern brambling, along with chaffinch, bullfinch, and native buntings rising from the stackyard like chaff-dust from the thresher. Flocks of fieldfare will gather on the line of maybushes, and redwings, too tame to be sure of life, will flock over the meadow. Partridge coveys or, it may be, packs, will be down in the water-meadows, and we shall stir wild duck from the very garden, if we walk

to the brook-bank at night. What salient three-pronged tracks will be traced over the lawn, where the moor-hen have stridden along in search of some rotten apple-rind half hidden in the coating of snow.

All this, and much more, we anticipate for the morrow, but a visit on the following week to the coast (which has as many winter as summer attractions) made me realise that our inland signs are a mere scroll compared with the volumes readable by seaside observers. The great solace and safeguard of birds is the sea and the estuary. There is a winter migration to favourite regions—such as the marshy edges of the sea at Wells, the Pembrokeshire moors, the Blackwater, or the Humber, and, far west, on the Irish Swilly, that may compare in bulk with the great spring and autumn movements, though they are quite of a different sort. This year, while the weather was open, the natives of such watery lands (especially on Scottish islands), lamented that they had seen no black geese-Brent or Barnacle-no black duck-such as scaup, or scoter; fewer flocks of knot or dunlin pursued the falling wave, "like another wave," as someone, I think Mr. Massingham, has written; that snipe and woodcock are anywhere or nowhere. Birds desert the sea as well as the inland for the sake of the ooze; "One foot on sea and one on shore" becomes a rule of life; if we may consider the tidal river to be a branch of the sea. Even in London we may be aware of the sea-change, for there are more gulls about the Thames, and along the Embankment itself odd members of other species join the black-headed company.

It is a hard life, a hard world, in the strictest sense of the attribute. All the birds are intent to discover some softer surface; the rooks fly down to the mole-hills that, being tip-tilted towards the sun, are the first to thaw; and the blackbirds (why are they all cocks?) are in multitude along certain hedgerows crossing a southerly slope. Dunes (such as Saunton in Devon) fill with birds, perhaps because loose sand can never freeze hard; but the sea's edge, where the coast slopes gently, and the banks of the escaping river are the surest softeners, and by far the richest larders. Even our inland thrushes will gather to the coast to feed on shelly creatures in lieu of the snails sealed up behind stones or the worms that have retired a foot below the casts now standing up as hard as hob-nails. Only the jenny wren, creeping like a mouse along the edge of the brook or at the foot of the hedgerow, seems to have the secret of appreciating the local alternatives to the ebbing tide and falling river.

The winter migration, altogether contrary to the spring and unlike the autumn, is a direct response to weather. If the snow and frost are very sudden and severe, especially when accompanied by strong wind, the winter visitors are routed out of the north or east in confused masses, and descend in multitudes on less steely food-haunts. You may find them on occasion in huge and weary congregations, arrested at the sea's edge. One night, on the approach of the hard weather of 1916, woodcock were seen in hundreds in the sandy dunes at Boulogne; and I have known of similar numbers close to St. David's Head. Doubtless in both cases they were hurrying on a journey of life or death to the kindly south-west, but, too weary to face a longer journey without rest, made a stage of the dunes. We cannot help such flocks in these straits as we can feed our garden birds; but it is something to know that the flocks of widgeon on London reservoirs (which are populous both with fish and shell-fish) are as large as upon any seaside flat. The town as well as the sea is a refuge.

6.

There are two reasons for being hungry. One is absence of food, the other is expenditure of energy. The second is apt to be much the more potent and prevalent in a warm winter among all sorts of living things: birds, mammals, and insects. The details of a particularly early season are worth recording. The rooks began to build on January the first, a ludicrously early date. The village wakes in the morning to their extremely energetic noises; and after sunset they career about the windy sky with hilarious zest. Tennyson made them caw out "Maud, Maud, Maud." These birds are saying "Spring, spring, spring, with all the misplaced conviction of the bellman's

What I tell you three times is true.

They had persuaded themselves of the truth and they had already discovered their vernal energy and therefore their vernal hunger. The sparrows had done exactly the same; and in one garden, at any rate, had expressed their unseasonable hunger by falling on a frameful of lettuces and devouring the best leaves, just as the pigeons are skeletonising the turnips on adjacent tilths.

Now, most of us delight in feeding our birds; the spirit of St. Francis is stronger in England than in Assisi (though Mussolini is now reviving it in the new sanctuary of Capri). Yet this spirit of kindliness works too partially: we feed some birds and no mammals; and perhaps are little aware of the habits of the classes that we neglect. Immense numbers of people, as their letters disclose, have observed that strings of pea-nuts may stir the greed of the great tit, but carry small appeal to the little blue-tit. Who can say of the tiny harvest mouse—

the daintiest and friendliest of all our little four-footed animals—what it feeds upon in winter, where it feeds, or even whether it feeds at all. The area of unseasonable hunger is wider than is altogether apparent and much wider than the largess of our hospitality.

This particular winter proved so mild (a word beloved of hymn-writers and country gossips) that winter sleep was often half abandoned. A good many creatures are undecided sleepers. Their species has not made up its mind whether it is the wiser plan to hibernate or not to hibernate. Squirrels, both red and grey, and, I believe, many rats and mice, perhaps shrews and voles, certainly hive-bees, and blue-bottle flies, are wakeful or sleeping more or less at the beck of the weather. We all know that our bees consume stored food more or less in direct ratio with the temperature: the lower the thermometer the fewer and smaller the meals. The insects cling together in a contracted quietude that itself maintains bodily warmth. My own belief is that some of the birds, especially perhaps wrens, which seek warmth and shelter in little gangs, can forget their hunger in a sort of sleep; and exist for an indeterminate period, like bears and turtles on their own fat, which naturally accumulates in autumn.

By far the commonest and most active of our bats, the little pipistrelle, abandoned his hibernation again and again. He is often a light sleeper compared with other bats, who, as a class, become more inanimate, and sink their vitality lower than any other creatures. The pulse slows and the natural heat is abated. Even the snails behind their sealed doors are not nearer death in appearance and in symptoms. That January the pipistrelles were to be seen patrolling for food at midday. Most people noticed as a rare prodigy of the year the raids of the rats, and less conspicuously of the mice, on any and

every sort of food: candles, walnuts, chicken food, and artichokes in the garden. They themselves had suffered from hungry enemies. More than once a heron was observed to pick up a full-sized rat in its beak and fly off with it.

The warmer, the hungrier, may be accepted as a concise, if ungrammatical expression of a general truth. A vastly greater amount of food is being consumed this most open winter than in other colder winters. The bits of fruit and meat on my bird table have attracted, among the less welcome guests, blue-bottle flies. Most animals, outside the true hibernators—snails, frogs, toads, hedgehogs, noctule bats, bumble-bees, queen wasps, and the rest—are unusually active, are eating, pairing, quarrelling and amusing themselves; and though food is more than usually prevalent—how few berries have been cleared off!—hunger has been engendered beyond the supply of food. This means that we have a chance of attracting a larger range of guests than usual. The hunger of the animals is the measure of our opportunity.

Could we not devise a table at which many sorts of little mammals might attend? A famous German Baron attracted such insect-eating birds as wrens, by pouring hot fat over boughs of a tree, and mixing with the fat, among much else, minute atoms of carnal food. We could, perhaps, bring into the circle of our observation most of the commoner mammals by aid of a table on the ground, some little distance from the window. It is astonishing how little is known of these often fascinating creatures. It has been roundly stated in the standard books that the harvest mouse hibernates. Mr. Thompson, most persistent and ingenious of all our observers, denies it in Nature by Day. He has found bundles of them in straw as some of us have found bunches of

Jenny wrens in an old nest. Will someone please attract this little creature and settle the important matter once for all?

It is a rare experience in England to discover that, after all, the year begins on the first of January, and the lengthening daylight is exerting its influence. The almanac is not so wrong as the world supposes. Beyond question the most highly favoured bush in the cottage garden is the daphne mezereon which usually flowers and disperses its spring-like scents in January. It is the only plant I ever lost by theft. I had left it in a garden I was deserting, and that I might not lose it by transplanting at the wrong date, set a great label beside it. Some cottage dweller could not resist the temptation. Doubtless it now flourishes (as certain plants such as this and the madonna lily seem chiefly to flourish) in a cottage garden. The Christmas roses (or hellebores) are by nature winter flowerers, though they need a covering of glass for their perfection. The yellow jessamine is rightly called the winter jessamine. Very rarely does it happen that you cannot find a primrose in blossom on the first day of the year; and the gardener who has no bush of laurustinus misses a regular Christmas greeting that he ought to enjoy. Those who live in the South-West are disappointed if it is not always spring. In the warm nooks of Cornwall, Somerset, and Devon you may expect to find a dozen sorts of plant in blossom, and may even mark a migrant warbler that has refused to believe in an English winter. The little spears of the bulbs will be pricking the surface above the tall cliffs of Pembrokeshire. We expect some winter flowers in such places, and, indeed, in our sheltered gardens, anywhere in this blessed island; but now and again comes a year when the commonplace is enlarged into a miracle, when North

and East are as floriferous as South and West. It proved a true symbol, that seldom was any year so loudly acclaimed by "the shout of primroses" and many other flowers as that which preceded the two years of drought.

The flowers are in part survivals, in part arrivals. The creamy blossoms of the shiny-leafed Mermaid, loveliest of climbing roses, have maintained last year's vigour; but the aconites and snowdrops are true heralds of the New Year. The most spring-like of all, the flower that really foretastes spring, is the strong but delicate purple-lined crocus. However well you know its ways you are sure of your surprise when you go out one dark, muggy morning and see the cup wide open to the winter weather. This year—a real portent—it was visited by a hive bee. Whatever our selection of bulbs, this "Thornasina" crocus should be in the company. There is real value in its greeting, if it cannot supply the spacious comfort of winter jessamine or laurustinus, or is less magnificent than the Iris stylosa hiding its mauve splendour in leaves and rubble.

7.

It is a commonplace of observation among those who have traffic in English woods or spinneys, or indeed beside hedgerows, to mark the general and particular signs of the struggle for winter food among birds and mammals. The rabbit leaves the most obvious evidence, both on the ground and well above it. Indeed, it appears to have the power of elongating itself beyond all calculation in its reach after the dainty that it requires. That tit-bit is usually bark, though in a coppiced wood, where young shoots have grown out of the shaven stools, it cuts off the whole tip of the shoot. Many saplings, especially ash, are completely peeled up to two feet six from

the ground. I found a single stem fixed by a keeper in an open field eaten almost up to this point. The rabbit must have been a large specimen that stood as upright as a man while it made its meal. Later evidence of a yet more thorough attack was forthcoming. A precious conifer, of silver foliage, had been planted with a circular protection of so-called rabbit wire. So far from protecting the young trunk, the defence had proved the rabbit's opportunity. It had apparently stood on the top, and by means of this convenient ladder had managed to gnaw the bark from the whole of the upright part of the trunk of the young tree till the needles began.

The hare may be as destructive as the rabbit; indeed, in a garden, with its peculiar passion for anything that passes for a carnation, it is more destructive. But hares are few and rabbits are many. A "happy countryman," with whom I inspected some of their depredations, suggested the theory that the grass grew so rankly this year—and, indeed, many fields are matted with grass—that it became inedible and bark was the rabbit's only refuge. However that may be, walking through a garden of Eden, where Nature had been left free and had sown may bushes broadcast, you might have thought that the thorn was of a barkless variety as to the first foot or two. As for the hollies, they were bitten to the bone without the omission of a particle.

At this time of year the pathways of animals stand out as upon a road-map. On one rough mound of deserted ground the rabbits were legion at the beginning of the year. By the compulsion of mere numbers they were forced into longer journeys than their wont in search of food. They made well-trodden paths to distant hedgerows. The numbers were ruthlessly reduced in several campaigns. After each the more distant reaches of their



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roadways began to disappear; and to-day the only well-worn tracks are those that lead into the field a hundred yards or two from their burrows. It may be said in general that they never migrate under the stimulus of a vagrom spirit, but only at the compulsion of over-population and the need for food. It is an odd fact—and evidence accumulated during the last season seems to me to establish it as a fact—that the first animals to emerge of an evening and begin to wander are the old does. Perhaps they are subject to a readier vagrancy because of the instinct to seek nurseries away from the warren and the attention of the bucks, who, as fathers, are as evil as, say, the male partridges are good.

The rabbit, unlike the rat, is not a thirsty creature. It seems to extract enough moisture from the shoots and the bark that it devours in such quantity. On another part of the same rough ground where the rabbits swarmed, a single small pool of water was formed. Four tracks, and so trite that they were hollowed out a little below the general surface, led to the watering-place; and the tracks were the tracks of rats, always less straight, but more faithfully followed, and therefore worn, than rabbit paths. The rat, after all, is half a water animal, and must drink or die. It has a good deal of trouble to find food in winter. If there are rats in the neighbourhood it is odds that when winter comes they will find their way into our clamps or other stores of potatoes, carrots, and such food. One of these visitors, finding no convenient hole near such a food-store, made himself a nest almost wholly composed of bits of paper torn into rough pieces about two inches square. There it established itself for the winter, sleeping and eating with com-fort and convenience. When the field mice have finished their stores of nuts or collection of seeds, assembled perhaps in an old thrush's nest, they imitate the rats, though (in my experience) they rather prefer fruit to vegetables—King Pippins to King Edwards.

There is one bird whose winter hunger is comparable in its virulence with the rabbit's, and may as nearly affect the interests of man. The wood-pigeon, especially the immigrant, goes where food is; and like the rabbit it has found it this year in gardens and market gardens. I have seen one which carried in its crop rather more than half a pint of Brussels sprouts. The pigeon's capacity is scarcely credible. Particular cropfuls of which I have record contained one over twenty hazel-nuts, another over thirty acorns. Only those who have seen the place before and after can believe the powers of a flock of pigeons to graze a patch of clover. They quite reach the rabbit's level of capacity. Indeed, on occasion rabbits have been wrongly accused of the pigeons' crimes, as of mice's offences, against the tips of leading shoots. It is the pigeon's habit to glut himself with food before going to roost. Browning might have been thinking of the species when he wrote that true but most cacophonous of lines:

Irks care the crop-full bird?

The pigeon sleeps and feeds in a bliss of simultaneous well-being, living on its full crop.

8.

One of the old humdrum general farms has been taken by an energetic farmer from the North and is in some measure mechanised. We feared this "new-fackled" business in the village; and indeed a chapter of particular beauty seemed to be ended. I visited the place one frosty morning with misgivings but "Romance brought in the 9.15": the misgivings were quite vain. The morning was favourable. The country walk is never fuller of incident than in days when the frost is hard. You may walk anywhere. The lane deepest in mud is clean, and the white ice in the ruts breaks with the pleasant tinkle belonging to all ice sounds. Stubble and tilth and sown corn are all a highway. You may step cleanly along your favourite hedgerow or take a bee-line to the isolated spinney, where the first primroses open and a beech stands like a cathedral, with its massive pillars and fretted roof and arch and clerestory. The moss beneath looks never so green as when it stands up in a cushion between the red fallen leaves. I wonder why Shakespeare suggested that it is in times of frost that "ways are foul," for it is then only that all ways are paved, though we must confess that some of the paving suggests rough cobbles.

Some misgivings precede such a country walk taken when an unusual frost has succeeded a period of unusual warmth. Dead and starving birds and "winter-proud" wheat cut to the quick are things to be feared. The misgivings on this occasion were less seasonal; they sprang not from the clime but the human conditions. The farms had been "mechanised," a hideous word for a thing that may be hideous. How would this homely country endure the vulgar touch? Its winding lanes are cut out deep between the fields, and the hedges straggle at their sweet will. Some of them are of that most graceful species known in most of the shires as "bullfinches": a high fringe rises above a more solid wall and gives a stranger the suggestion that a wood is beginning, just as the scattered trees on the route from Plymouth to London gave General Botha the feeling that he was

always just coming to a forest. Would the bullfinches be shorn and the little hedges grubbed, and barbed wire, that symbol of cantankerous parsimony, bar the bare fields?

England, it seems, can triumph over any change. On every other grass-field the plover were grouped as conspicuously as rooks in a rookery and the fieldfare chattered over their meals of hip and haw. No change in the common life of the country could be felt or perceived. On the grass-fields, green because well grazed, fed satisfactory numbers of dun cows and blue cows, that joint product of Friesland and Durham. They had not been routed by winter as in "less happier lands." The "strawbuilt hut, warm with the breath of kine" has a romantic ring; but the cows, as in Switzerland and on many small farms in most countries, emerge almost blind when spring comes, and have enjoyed a sort of warmth at the cost of everything else. This was better and a better sight. Two rough yet well-dressed labourers toiled down the lane under the weight of great trusses of hay to be fed to the stock in the open field; and others had been busy at other times in scattering roots over the grass.

One grass hillside, to which the scattered roots of huge girth gave the likeness of a pebbled beach, was populous with long-woolled ewes; and there seemed to be a rough stackyard in one corner. It might hold a flock of finches, birds best worth observing in hard winter weather when the northern visitors have sought refuge in the South. On nearer view that expectation fled. The straw proved to be no yard, but a lambing pen of more than usually luxurious proportions. The straw walls were built on tall hurdles and so heavily packed that not a breath of winter could penetrate. The oblong contained a snuggery divided off, and though

still in preparation, promised maternal comfort. The heavy ewes, munching swedes on the grass outside, showed a tendency to nuzzle towards it, as if foretasting the hour when they should be safely delivered within its shelter. The farm was busy; and after all, the flourish set on our homely landscape is the life belonging to the place. A good herd of cows, a flock of sheep have at least the value of a clump of trees or a spinney, or a flock of finches.

The one piece of ugliness on the mechanised farm is the factory, the immense building where, every morning and every evening, some four score of the cows are milked, are most mechanically milked by robot fingers. It has not the picturesque attraction of "the strawbuilt hut" dear to Pales, nor is the curious machine an aesthetic rival to the milkmaid or milkman, whose gaze becomes (like Athena's) almost ox-like as he lays his cheek to the flanks of the grateful beast. It is clear from the peaceful assembling of the cows for the ceremony that they enjoy the machine as they enjoy the fingers of the milkman. The cleanliness or orderliness and celerity of the work may compare with the oil-fed boiler of a liner that has succeeded to the coal. Yet you feel a pleasure in the survival of the old when the cows are finally left to the tenderer mercies of the milker and "stripped" by hand. The man himself feels the sort of triumph expressed to me by an old mower in a tangled harvest field. "They can't do without me yet," he said, as he whetted his scythe, and presently laid low the awkward "headlands" and tangled clumps of straw with the rhythmic precision of a true artist.

Petrol-driven lorries hurry along the deep and narrow roadway laden with the Londoner's next morning milk. The hedges of the roadside are singularly neat examples of layering and wattling, carried out by an old country craftsman. The top is as regular and level as a stone coping, and the slanting stems half-severed with such nicety that their life may be judged to a month; and is designed to coincide exactly with the growth of the new shoots to hedge height. The new has not killed and will not kill the old. Though we regret the beauty of the old tithe barn, with its oaken Queen-posts and autumnal tiles, yet we may feel that neater hedges, firmer roads, better stock and higher wages are all attributes of the beauty of the England of the future. The plover at any rate still feel at home on the mechanised dairy farm.

9.

Now and again, as in the last week of January 1933, we are given bearing ice that has all the virtues. The water has set like well smoothed cement or well cut grass. No weather has wrinkled the smooth surface while the ice formed. You would indeed hardly believe that this glassy surface could be compacted of a medley of angled and pointed crystals, the pot-hooks, the iotas, the crooked characters that you see forming only when the frost first gets to work. Two or three inches of such ice are as strong as plate glass. Not a bubble of air has been caught in it to form treacherous eyes of "cat ice." No thawed rime or snow has mixed its opaque contamination with the pure water. On one adorable lake in a famous park the water was too deep and clean to allow of any weed reaching the unsullied surface; and the swans and duck had been kept to their own particular quarters where with much labour a clear pool was kept. As they swam there among the floes, even the white swans looked almost clumsy in comparison with some of the skaters.

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What a gloriously English scene it was! The great oaks and beeches, all spaced widely enough to show their quality and habit, adorn the sides of the valley, the enclosure of the lake. The house, a model of colour and comfort, if not of architecture, stands above sloping lawns and grass plots already broken by a host of bulb-spears, and beyond it disappear into woodland, cedars and deciduous cedars and many an exotic tree that has taken on an English air. By the river that feeds the lake yellow osier and red dogwood have mimicked the sunset colours of a frosty evening. The lake itself is merry with a scene that was better known to Victorians than to the later world. A group of the disciples of the dignified English style in skating-known to no other people-cut the pattern of their combined figures between two hilarious games of bandy and a miscellaneous crowd of skaters in all stages of the art. As the round sun sank, the delicate mist caught and held the ruddy colour and touched with a soft dye every branch of every tree.

Time was—in Victorian days (in '82 or '95)—when rivers froze as firmly as puddles; but in so brief and mild a frost as the latest, the streams are decorated with an ice that has all the vices. It is mostly cat ice, opaque, resting on air like the ice in a cart rut, not at all on water; but here and there, where the stream widened out, the good and the bad met and even coincided. Within fifty yards of a patch of open water out of which a bunch of mallard and one teal were flushed, you could skate in perfect safety, but hardly in perfect comfort. The water of the mere was falling, the weed had come to the surface, and as you struck out the ice responded with pistol shots, and thereafter a quaint crackling rumour all along the fringe of cat-ice. Great cracks that enabled you to see the pull of the ice multiplied on all sides, without dimin-

ishing the safety, for the commonest of all the old sayings about ice is true enough: "She cracks, she bears; she bends, she breaks." The fusillade was a salute, not a hostile demonstration. The pioneer skater might trip on weeds or air-holes, but would run no further risk if he dodged the main line of the stream.

The stream is to be avoided by those who skate; but never at any time are its banks and the sedgy margins so full of incident as in days of frost. All still waters are sealed: the long dykes of Cambridgeshire Fens, no less than the country-house lakes of Hertfordshire or the meres of Cheshire or the meadows at Oxford. A sheet of black ice, a land iron-shod by cold repels every bird and mammal that can find escape. You will scarcely find a footprint on the biggest sheet of ice, and the tracks across the dyke are straight and narrow as the beast can make them. Every animal would escape so barren a desert. Where do they resort? A favourite haunt is the running stream. Alongside rivers that flow into London, and even on the lower reaches, you may make sure of certain birds, rare and shy at other seasons, and, if fortune is with you, discover rarities of whose presence you have had no suspicion at all. You may travel half across the Fens, those plains of still waters, and not flush a wing of any of the birds that are held to be characteristic of such country. The snipe were plentiful in the Fens in September; they rose in quantity even from the potato fields. Not a snipe remains in the fields of Manea, in the sedges of Wicken, or along the whole length of the twenty-foot dyke. But walk up the Ver or the Lea towards London; and even when close to London it is odds that you flush full snipe, and perhaps Jack snipe, fat mallard, and little teal, with the feather on the wing, greener than any on the green plover which will

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abound. Past you may shoot the fastest of all commoner fliers, the golden plover. The bits of hedge and bush are thick with fieldfare and redwing; and those who carry a gun on such a walk will have some ado to refrain from firing at strange seaside and water birds to make sure what they are; and the man who can distinguish a high-flying stint (found on one such recent walk) has good eyes indeed.

The stream and the crackling sedge, the busy water tinkling the fringe of ice, the quaint plates and icicles suspended from overhanging bushes, the succession of surprises from flushed birds, draw any naturalist to the river. Yet, if he be also something of an athlete, the Fen dyke may prove the more potent magnet. A new mode of motion has its peculiar zest; and these dykes, running straight between steep banks, have become roads indeed; and the swinging rhythm, the strong stroke from a true edge and easy glide, twelve feet and more to each stride if you please, give an exhilaration beyond any mechanical progress on air or land. When evening comes, after a score or more of miles have slipped behind you, without labour you may learn at last what a lowland sunset may be. Even a still sea, where the pathway of light runs from your feet to the horizon, cannot rival Lingay Fen when the red sun kindles its image in the gleaming ice and the wisps and washes of colour decorate both the Eastern and Western sky; and the very mist about the willows and low plain takes on the "rainbow tints" of a pigeon's neck. It is to the plain, not to the mountain, that this peculiar glory belongs.

FEBRUARY

Lamb, Shepherd and Fox—The Mill Wheel Turns—Signals of Spring—Kindly Snow—The Bridge of Winter—A Golden-crested Wren—Dyke and Dell-hole

I.

ou never know what shapes snow will assume in answer to wind and contour. The covering of 25 a whole field will blow into a crumpled heap in some roadway or dell-hole or dip. The flakes have travelled often a long way, as spindrift, and the flat fields exposed to the wind are no more than sprinkled. They look as if they had been scraped or harrowed, so that their surface-crevices became filled and their knobs left naked. So it was in the latest storm. The field path gave good walking. Where there was some shelter from the north the snow lay white and even in its uncompacted lightness. In more open places the ridges were almost bare, and only the furrows pure white. One field looked like a bay of frozen waves, for the alternated brightness and dullness absurdly exaggerated the abruptness of the native ridge and furrow.

The first part of the walk was over fields, the second part was meant to be along a little narrow country road; but the well-laid plan went quite agley. The road was smooth enough under the lea of a wood, and the snow patterned with tracks of both bird and beast, chiefly pheasant and rabbit. Just beyond the wood it became impassable with drifts of curious and beautiful pattern.

They crossed the roads in arcs; each separate drift made miniature Alps, with a fine sharp ridge and occasional peak and steep side flattening out to the foothills. Four feet of depth gave you the model of a Swiss scene. The matrix was the hollow of the roadway, and the gaps in the hedge directing both the draught and the supply of snow. A gap between two holly bushes made the finest ridge.

The scene was delightful, but you cannot walk far through four feet of ridged snow, and it became necessary to take to the field, as, indeed, may be the better course after heavy rain. Ways are never so foul as in these dug-out lanes and by-roads. As I walked through a gap in the hedge I came face to face with the most forlorn little creature that ever I saw, a very young lamb, bleating almost inaudibly and standing with its back legs wide apart, as if it feared to fall. Where was the mother? No sheep were in sight; and it is rare for a ewe to neglect her lamb. One thought of Jan Ridd, who found the sheep buried in drifts, but nevertheless comfortable enough in the snow house hollowed out by their warm wool and warm breath. Modern man could not carry a sheep under each arm like the Devon Hercules; but a lamb was not a difficult matter, if one knew where to convey it. At this crisis a small boy appeared. He was the son of the shepherd sent forth on a roving expedition to see what the sheep were doing. The flock had wandered far in search of food. No hay enclosure suitably furnished with roots had been provided, for the strange summer-like season had encouraged such grazing as you do not find in one January out of a score. The ewes, it seemed, were in the next field but two; and we went in search. The lamb needed no help in spite of its feebleness. It followed the

boy as close to his heels as the best-trained spaniel, down the hill, into the valley and up the next slope; and there were the ewes following one another in a straight line towards a yet remoter field, for the hedges on this farm serve no other purpose than to give the fields a certain individuality and a right to their names, for every field has been christened.

One difficulty in the work of rescue remained: the lamb could not walk fast enough to overtake the retreating flock. Its skinny legs straddled wider, and the flock retreated rather faster than before. You might have taken them for black Brittany sheep, so dark they looked against the white snow. The lamb's bleat carried about five yards, so faint it was, a sort of sigh; but it suggested to the boy the device of increasing its volume. He bleated too. We both bleated. The sound was not quite like any sound that ever was in heaven or earth. Though it may have been "a poet's dream," yet it possessed the virtue of range; it carried; and in spite of the absence of a filial or maternal note in its ludicrous mimicry, it set up some wave of thought or feeling in the disappearing sheep. They stopped; and when after a moment's pause they moved on again one ewe left her place in the line and fell to the back, and finally stopped. She had one lamb with her and had, it seemed, temporarily forgotten the twin. The boy hurried up the slope with the lamb in his wake, and stopped, like a welltrained sheep dog, when the ewe looked like turning away. The vagrom baby, like Black Auster, had toiled behind in vain; but now made good the gap, and at last stood indeterminate between mother and boy. Then the doubting mother advanced, smelt the baby from end to end, decided that the odour was authentic; and the last picture is of the lamb butting its mother with that

hostile energy which consorts most queerly with the maternal pleasure in giving suck.

The boy, who had proved himself a real disciple of the old shepherd, had inspired a complete though not surprising confidence in the lamb. It followed him instantly as soon as he appeared, and was obviously at the end in some doubt whether the mother was to be preferred before him. How did it know its friend? Such questions cannot be answered; but it is a not uncommon experience that animals in distress see protection in man. I have known a tired fox sidle up to a ploughman and stay by him. A bird, chased by a hawk, took refuge in the small boat of another acquaintance and stood between his feet. If wild animals will grow so tame and grateful, how should not a domestic lamb have utter faith in the shepherd's son?

A very different scene was recalled by the incident from "happy homely Hertfordshire." On the Cotswolds works, loving his work, a shepherd who sees the spring come in very different form from most of us. Doubtless the valley shepherd, who

tells his tale Under the hawthorn in the dale

is aware of as conventional a spring as any gardener or poet. He tells his tale, that is, counts his sheep, where the "maze of quick" burgeons, where the dandelion has secured a "thousand golden darts," where the meadows are "pied." The approach of spring on the Wold and on the Down has signs we scarcely dream of in the valleys; such as the innumerable snails and the number of wheatear; but a grimmer sign is now in question. Not the seductions, but the hunger of spring is most insistent; and to the farmer the season is one of

danger. If you do not believe, the experience of a Cotswold shepherd, who watches his flocks both by day and night, will convince.

One of the best of springs in regard to weather proved to be one of the worst in all his long records. He lost a number of lambs, killed and devoured by foxes and, he avers, by badgers. Now, for myself, I lived for many years in the heart of a hunting county. Every little wood and often the small spinney held its fox. Who ever heard of drawing Gidding Gorse or Salome Wood or Barnwell Wold blank? I have seen foxes feeding out of a pig's trough. I have found one dead in a spinney, killed by a trap set for a rat in an outhouse up against a cottage. I have watched cubs playing in assembly and streaking across a riding as numerous almost as rabbits; but once only—and that instance was doubtful—did I hear of the fox coming down like a wolf on the fold. As for the badger, the idea of defence from such an enemy never entered my shepherd's head.

The experiences of the Cotswold shepherd are of a different colour. He has seen enough of marauding fox and badger to have studied the nicer points of their strategy or tactics. The Cotswold fox rarely attacks an only child. He selects twins, not from motives of comparative humanity, as humanitarians are capable of arguing, but because success is easier to attain. The maternal ewe is watchful and courageous, and is endowed with a hereditary fear or suspicion of the dog tribe. The most beloved sheep dog, however obedient and gentle, is not allowed among the lambs for the reason that some ewes will attack him with silly savagery and endanger the breakdown even of his learned and inherited docility. This Cotswold shepherd left his dog by the gate when he went among the lambs and ewes, communicating with

him by low and sweet thrush-like calls, most of them to the end of persuading the dog to crouch and keep himself out of sight. If he so much as stood upright by the gate the ewes evinced a certain uneasiness. The sheep, perhaps, deserves its constant epithet of "silly," in the worse and later sense, but it has good senses. It sees well and smells well. Neither dog nor fox is likely to approach unseen.

The hungry fox or vixen, who cannot succeed by mere furtiveness, openly advances towards a twin lamb which is at once defended by the ewe. She retreats with the lamb as close to her side as young wild-duck to the mother when danger threatens. As soon as the sham pursuit has proceeded far enough, the fox retires and attacks the second of the lambs, by this time left in isolation. It is only, of course, the very young lambs that are attacked. We see so little on our farms of a "nature red in tooth and claw" that we can scarcely believe that any remnants of the life of the wild survive among us. It is long since the monkish chroniclers of Crowland recorded the ravages of "that grey beast, the wolf of the Weald," and even the eagle is known to few shepherds, or that much more savage killer, the greater blackheaded gull. Yet our foxes have remained a bane to the flocks in Australia, where they were introduced for the amusement of an early garrison who desired to hunt. Our English foxes and badgers obey the happy rule of our temperate island that they keep within measure and, whatever their minor offences, are virtuous members of a well-behaved community.

2.

A rumbling and a liquid noise, not heard in the village for several years, once more echoes off the walls of the Elizabethan inn. The unemployed, or half-employed population, has been reduced by two, and reached the vanishing point; and there is good reason to rejoice whether or no you are acquainted at all with the hamlet or its workers: the wheel of the old mill revolves again. It was stopped and seemed likely to be condemned to rot in cold obstruction till its flanges fell to pieces by decay. Other country mills in these easterly streams had ceased one after the other; and the silence of this survivor was taken as sign and symbol of a departed epoch. No more would local farmers and gleaning workers take grain to the milling neighbour, and the people do traffic in the sharps and middlings and other forms of fodder shed from the flour. It had run continuously from before the Domesday survey was begun; and some of the machinery, made doubtless at home, looks as if dated from the mill's birthday. How rough and lumbering; but how efficient it is. The oak beams are of unknown antiquity; and if you take an electric torch into the darker rooms and passages you will find that these great oak runks are punctured, wherever light was needed, by deep holes, into which the handles of the "carry candles" were thrust.

The stream hits the main road through the village at right-angles, and the wheel is hung by the upper mouth of the tunnel. It is a pleasure to see again the thick white counters of foam come bubbling out of the arch and floating down the main stream; and to watch the quaint sideways weir above it, holding up the stream till it is still almost as a pond under the willows and by the weeping ash. The place is very lovely, especially before sunset at this season of the year. Among minor attractions is a little garden in which over-worn millstones play a decorative part. February Fill-dyke has played its

SUSSEX COTTAGE 300 YEARS OLD

part, though not in full force; and the volume of the stream is heavy enough to set the great wheel—you can see it through cracks in the boards—revolving powerfully and regularly enough to set the stones and rumbling machinery in motion; and keep continuity with the days of the Conqueror.

The new revolutions of the mill-wheel are not an isolated whirligig. The stream, the creatures that frequent the stream, and to some degree the vegetation, have all altered habit since the mill stopped. With no one to care for the good of the current, except some few fishermen, mudbanks appeared in new places. One of them, at any rate, has become a very fair spectacle, for the monkey-flower has found on it just the conditions it seeks; and though the plant has flourished of late years out of all conscience, it is a splendid thing. For truth's sake, the beauty of the mudbank must be acknowledged; but mudbanks are not good for a river. These have altogether repelled the finer fish, and perhaps killed some of them. The mud generates nasty gases; and a trout caught in the poisoned water may perish incontinent, like the fish that are carried by the Jordan into the Dead Sea, expecting, perhaps, another Tiberias, which is a fishes' Paradise. Even the sticklebacks are fewer, and the bit of gravel shore just below the mill was a favourite hunting ground for tiddlers. The gudgeon and roach remain lower down, and are said to be fewer even in the shade of the sycamore, a favourite haunt of fishers, two hundred vards lower down.

The mud kills the eggs of the Mayfly as surely as the débris of mines has destroyed the ova of fish in the greater and once merrier streams of Merioneth. Even that wolf of the stream, the dytiscus beetle, which abounds, does not like it. It has been previously recorded in the annals

of the hamlet's natural history how birds delighted in the engaging reach immediately below the mill. The ways of a few rarer denizens may be repeated. A kingfisher watched day after day from the boughs of a thorn that weeped over the steep bank. Dabchick lurked under the blackberries that more closely overhang the same bank. At night and early morning, when the village was abed, wild duck came there with some regularity; and I have seen a duck land on the bank not twenty yards away with ten babies at her tail. Moorhen always nest there; and I have seen young birds almost bump against the water voles which have always abounded. All the population of the stream, whether exiled or not, will rejoice in the new bubbles and in the cleansing of the water that may ensue.

The mill in question is well within the radius suggested for the green girdle that is proposed for London; nor is any piece of country better designed for the recreation that comes of walking in English scenes. Spring is early by the river, and winter late. Already a weeping willow is green in leaf, and the water buttercup begins to sprout underneath the water, and the grass at the edge has grown into spring greenness. The walk along the valley has few rivals at any date, not least at this. The little black farm is the only building that separates the Domesday Mill from the fourteenth-century cottage a mile and more below it. Stevenson called Hazlitt an epicure because he liked a bend in the road when he went for a walk. The river makes epicures of us all. Its bends may be as sudden as the crook of a contracted elbow, or it may wander in lazy curves, till it passes the line of deciduous cypresses with their queerly knuckled roots, and is persuaded to become a lake, before it passes on

again to give London its water supply and unite in unregarded confluence with the Thames.

3.

Almost the best welcome to spring in our language and therefore in any language or land—is Coventry Patmore's Saint Valentine's Day, for so it often happens that lesser poets—in Mr. Jorrocks's phrase—"fill up the chinks" left by the bards sublime. And the ode which he called "Winter" is as fine a greeting to the same season. This ode is very exactly in tune with the bestknown natural history diaries, though the diarists predate their hopes of spring yet more whole-heartedly than the poets. They record the first signs of spring in November —in the singing of the thrush, the budding of the honeysuckle, the renewed activity of the worms. On the other hand, one of the most thorough of the older books that take us round the year, The Country Month by Month, begins, like the Roman year, with March. But Coventry Patmore has hit the English hour more nicely than anyone:

O, Baby Spring,
That flutterest sudden 'neath the breast of Earth
A month before the birth.

The lines may be compared with those of Francis Thompson in *The Dead Cardinal*. We have still, then, a month to wait before the arrival of proper spring; but what a catalogue—and a catalogue *raisonné*—of spring pictures any countryman can this year give; and the town, with its warmth and shelter, may anticipate the country. If the ill-logic is pardonable, we may say that some things are always premature: the primrose always flowers in December, the thrush and robin always sing

in November and in January, the honeysuckle always buds soon after New Year's Day; and nowadays exotic and "made" plants, such as heath and rhododendron, decorate the winter garden with bright flashes. In the deep, well-sheltered rock garden at Kew we may find tiny flowers (which are more precocious than the big: witness the minimus daffodil) as early in the year as we think of visiting that delectable land, and, to ease our ignorance, a thoughtful authority greets us at the gate with directions for the discovery of spring at this and that spot.

We have all our favourite sign, for which we look and of which we first think; we have all perhaps our favourite quotation; and may perhaps profitably confess all these, however trite, in order to exchange them with neighbours. My favourite search—to confess it once more—is for the crimson flower of the hazel, tasselled over by the hanging catkins, which always begin to shed the golden dust long before the lesser blossoms are ready. And the line or two of verse that most sternly refuses to be suppressed (since a friend introduced it) is from Patmore's winter ode, and concerns the buried bulb that knows "the signals of the year," and hails them "with lifted spear." To complete the confession, the first sight of the winter-proud snowdrops, that pour like a cascade down this dell-hole or lie like pools of reflecting water under those dark yew hedges or quaintly, to quote a forgotten poet,

dot the green About the fountain Hippocrene—

always inevitably recalls the little scientific fact, discovered by a German botanist, that the hanging bell of these modest and courageous blooms holds a drop of warmth, that saves the tender stigma and stamens from the coldness of the air about them. It is a prudent nest for the eggs; and there they will hatch.

Other signs, other facts are more esoteric. There was an old shepherd who maintained that the stars were always brightest when the lambs were born. That was his conviction. Whether it sprang from associated memories of one of the only verse quotations in his memory: "While shepherds watched their flocks by night," or whether it was a true and personal observation of an actual phenomenon we need not be precise to argue; but this February, to go no farther, the shepherd in his straw pen, among the lambing ewes, has seen skies not so much "thick inlaid with pattines of bright gold" as blossoming with spring flowers. Was ever Orion so flaming a figure as he marches towards the West, or did ever Venus at his feet glitter with more seductive brilliance? It seems to my eyes that the shepherd is really and truly right; that the February stars are supreme, nursing, like the snowdrops, an extra drop of warmth in their circles. It is at any rate right that the shepherd should think so this February as ever is; for the ewes and lambs have flourished as they should on the perfect farm. The clear night skies have been full of health, the grass slopes are dry and green; and morning rime is a medicine.

February in a favourable year holds many of the virtues allotted to March. If the poets are apt to predate spring, many of us are inclined to post-date it. "March is the month that blooms the whins" is true enough. It is first in March that our commons become a field of the Cloth of Gold. But the greater gorse (which flowers at different dates from the lesser species) was flowering freely on a particular path—always in April favoured by nightingales—on a Hertfordshire Common.

Gilbert White kept a special eye on the flowering of the yew tree, which might be obscure if the quantity of pollen were not immense. His earliest recorded date was St. Valentine's Day. On this Common, where the gorse blooms, the junipers pour out such puffs of smoky pollen that many people think it is the relic of March. Perhaps the place where spring is most precisely characterised is the floor of a rough or double hedgerow. Above the masses of hazel catkins are mingled with surviving berries of the dogrose, and green leaf buds may be found as well, oddly coinciding with last year's fruit. Below Dog's-mercury and cushions of kex make as green a thought as ever Marvell found in the richness of his summer garden. Dog's-mercury, a green weed very important to the early searcher after spring, is very green and in full flower. You may find purple and white dead nettle (probably the most consistent and persistent bloomer in the list). It is odds that you see trace of young rabbits born this year, and with luck may discover a thrush building in holly or thorn. At the right time of day lark and tit—not only robin and thrush—will salute you with snatches of spring song. Should the sun shine a cloud of gnats will dance, as if pretending that a February hedge were an August river bank.

4

Your signals of spring are not seldom blanketed out by evidence of sheer winter and in the frost the crocus "lays his cheek to mire" when the frost yields to thaw. When the return of winter is expressed in snow, it is more apparent than real. Snow is, of course, one of the fairest of all substances, in any form, until it is fouled. One can watch it falling with the same continuous pleasure that one can watch gulls flying round a ship. The flakes look black overhead, then shine white as they near the ground; and if they are large they float in a toand-fro chassé that suggests the flight of a butterfly. But they are fairest when they lie on a frozen ground in full sunshine. We know that each snowfall is individual, in the sense that the crystals of each fall differ in structure from the snow of any other fall; and we feel it, though we cannot see the nice and detailed delicacy that the microscope reveals. On some days the surface is much more thickly diamonded than on others. More facets catch the sun, not only because the crystals differ, but because the petals lie lightlier on one another and owing to temperature and the size of the petals more air is caught between them. It is my belief that a number of animals are very sensitive to this quality in a snowy covering. The effect on them is more than aesthetic. For example:

In a Northern county, while the sun was shining with spring brightness, I walked with an agricultural labourer through a field that had been left very much in the rough. That lusty and stately grass which rejoices in the good English name of Cocksfoot entirely possessed the place. It was a forest of seed-heads, but between the uprights were pent roofs of stout stems laid at all sorts of angles. The snow was in deep patches; the only sign of life was a finch or two feeding on grass seed. Not even tracks or slots of bird or mammal could be found: but as we walked we found the field alive with game, both pheasants and partridges, lying so closely that they would hardly be disturbed. They had made snuggeries exactly like the "forms," commonly used by hares and to a less degree by rabbits; and it was thought that there were many more birds there in the time of snow

than before or after. It added to their warmth. It was not regarded by them as a cold thing, but as a source of heat. You could feel the warmth as you can in a rabbit's form, when the bird had flown. A villager, a man of very acute observation, said that he had often watched the birds come out of the wood to roost in the snow.

Hares often, and occasionally rabbits, use it very much as the Esquimaux: they make houses of it. A sportsman walking with a retriever (a great friend of mine) over a deep snowfield saw his dog stop and set almost like a pointer; and looking down he perceived just the dark eye of a hare looking out through a small round window in the roof of his snow-house. Dog and man and hare looked at one another at close quarters for half a minute without moving. The dog was so well trained that he made no attempt to disturb the hare; and the sportsman, melted by the soft eye looking from the snow, walked on, and the obedient dog followed him. It was a pretty episode, that would have delighted the poet Cowper. One of the most timorous of all our animals displayed surprising nerve: the dog, a docility and capacity for restraining his elemental instincts, that almost amounts to reason; and the sportsman gave evidence that humane feeling and the carrying of a gun may coincide. The incident recalled an experience of the North-West of Canada, told me by a friend who is both naturalist and traveller. On a plain of snow he came in sight of a hare pursued by an ermine, both protectively coloured to the whiteness of the snow. The hare, now in the extremity of danger, ran straight up to the man and crouched between his feet. The pursuer circled round the two for a few minutes and then made away. When he had disappeared the hare, still showing no fear of the man, rose and pattered slowly away.

Snow can be rough or kindly in its quality as in its quantity. Some snow at once drives the worms, and therefore the moles, far below the ground surface. Contrariwise in one snowstorm I found many moles tunnelling so near the surface that they broke it; and their passage was marked by a line of snow tiles: the frozen covering had been broken into geometric pieces as it was heaved up from below. The snow had fallen during a thaw that was very quickly followed by a bright sun and sharp frost; and though the white layer was thin. I have seldom seen a field and lawn so bedecked with brilliants. Walking upon such a surface one thought of a famous passage in which Jefferies quotes Leonardo da Vinci. Both had been astounded at sight of the coloured aureoles making and unmaking themselves before the traveller's feet. As the Polar travellers noticed, lying snow varies much in colour. It is never white, but sometimes blue, sometimes prismatic.

One of the most charming passages on the theme of snow crystals is in that underestimated writer Thoreau, and he lays special stress on the difference of one snowfall from another: "The thin snow, now driving from the north and lodging on my coat consists of those beautiful star crystals, not cottony and chubby spokes as on the 13th of December, but thin and partly transparent crystals. They are about one-tenth of an inch in diameter, perfect little wheels with six spokes, without a tire, or, rather, with six perfect little leaflets, fern-like, with a distanct, straight, slender midrib, raying from the centre.

I should hardly admire more if real stars fell and lodged on my coat." The difference depends to some extent on the height at which the crystals were formed in the atmosphere, and a hand lens will reveal the secret of birthplace as well as of the beauty; but it is of animals

that cannot use a hand lens of which I am thinking. In this particular kindly snow many birds and mammals seemed to revel. You did not, as usual, see any partridge coveys; massed close together, making dark patches visible from afar. Some divided into pairs, taking the snow and sun together as heralds of spring, not proof of winter. There was no collecting of birds as usual to the edge of the stream—a great refuge in snowy weather—nor to the haystacks. Rabbits were abroad in the daynor to the haystacks. Rabbits were abroad in the day-time, and it was not only by the hedgerows that you found a pattern of footsteps: the deep little prints of the thrush's feet side by side; the bold mark of the pheasant's in a perfectly straight line one behind the other; the circular scrabbling of the partridges and the larks; the regular succession of the rabbit's four prints; roughly copying the thrush with his fore feet and the pheasant with his hind, very different from the irregu-larity of the dog's gallop. Most dogs enjoy snow hardly less than children; and on this day the whole animal world seemed to have adopted the tastes of dog and world seemed to have adopted the tastes of dog and child.

5.

Our days in England are bound each to each as intimately as even Wordsworth desired; and the bond in certain regards is charity. We enjoyed a charitable summer. The sun shone and shone again. The ground grew hot and dry. The sap that was drawn upward, by a blessed denial of gravity, into the upper buds and boughs, was a richer elixir than is common. In some countries, even the colder countries, the summer is always bright and dry, as in the famous and most lovely—if over-valued—Okanagan Valley, which it is generally necessary to irrigate, so small is the rainfall. The

result of these conditions is that the apples, which are the supreme fruit of the region, set in quantity every year; and at the end, like Portia's suitor, are clad in the "burnished livery of the sun." They redden more than most English apples—always excepting the Quarendens, whose red is more than skin deep, and they furnish a more regular crop. The moisture and coolness of an English summer are apt so to dilute the climbing juice that every other year or so it produces not fruit buds (which resemble the Queen bee in their need of a special nectar and ambrosia), but leaf buds.

We may already see the fruits of a summer of long hours of sunlight. It is more than a prophecy that the clear skies of June last will beget flower and fruit. Does any gardener remember a year when that glorious and lusty alien, though long since thoroughly at home in England, the winter jasmine, bore such large flowers or such quantity? A bowlful distracts my eyes as I write. It is one of the many virtues of this most springlike plant that (like the clarkia and unlike the blackthorn) it will open every bud in water. It is known as nudiflorum, and in truth can

Wallow naked in December snows,

or, what are worse, January frosts. These spikes, along which ample blossoms, all of the true spring colour, sunshine colour, stand as omen and promise of a fruitful year, are a happy comment on the passing of the virtues of one summer into its immediate successor. Winter is no more than a bridge intrinsically joining one summer to the next, or the beauty coming to the beauty gone. Whatever does it matter that for a space when the sun enters Capricorn it shows itself above our horizon for no more than seven and three-quarter hours? It encourages

the fruit trees to sleep, and that is good for them, without injuring the inherent life.

In a neighbour's house is a pot, not of flowers but of snowdrop roots. Their sharp points have pricked through the soil like driven nails, and there is pleasure, daily pleasure, in watching growth as such, as we watch the advance of the line on a self-registering barometer. By all means, let us pot snowdrops; but these bulbs in the bowl are, as it happens, a week or fortnight behind the date of a patch of snowdrops of exactly similar variety just beginning to blossom under the shade of a Garrya elliptica in the open garden. The snowdrop, after its manner, has taken no heed either of the coddling in the warmed room or of the frost in the open garden. The species in general flowers when its time comes, not before, and not after. The hanging head, which conceals as lovely a contrast of green and gold as nature offers, keeps the pollen dry and warm, as alleged by the ingenious and enthusiastic Kerner. Certainly it resists cold and sets seed more freely than any other winter flower. In favourable spots almost every seed will germinate.

Sweet scents are not altogether denied to the premature flowers that face the rigours of winter. The common snowdrop (which grows wild in quantity, especially in the North-West) is not sweet, and does not seem to demand the visits of insects. It sets its seed freely, though unvisited; and sweet scent would miss its purpose if lavished on a world where no creature subject to the lure is at large. The snowflake, which blooms several weeks later, is sweet, very subtly sweet; and it is a wonder that it is not more often grown in humble gardens. The cheimonanthus, best of winter shrubs, is sweet, and no bush in the list is sweeter than the early viburnum fragrans. The Christmas rose, on the other

hand, for all the charm of its white petals, is both poisonous and, so far as it smells, unpleasant, as the hellebore is meant to be.

The botanists have not enough studied the secret of resistance to frost. It is said that in some shrubs the varieties with striated leaves are tender, and must therefore be protected; but who can say what quality there is in, for example, the witch hazel, perhaps the most interesting, because the queerest, of winter flowerers, that keeps it successfully defiant to the worst that black January can bring to bear? The hazel is as robust. A hard frost may brown the yellow catkins, but, like the yellow flowers of the jasmine, they have always a host in reserve. The female flower is perhaps more resistant. In spite of early frosts of unusual severity and duration, enough, one would say, to deter the most precocious, the scarlet stars were open one year as early as January 10. Was the hot summer responsible here, too? Why is it that the stinging nettle, else one of the lustiest of plants, is particularly susceptible to late frosts, while the dead nettle (which shares its name, but not, of course, its family) is of all the plants there are the most defiant of season, in spite of its weak appearance and sappy, flaccid stems? One could pick great bouquets of uninjured flowers to-day in the throes of a frost of ten degrees.

6.

On the South-East Coast this February a goldencrested wren was picked up dead; and the poor little body was sent to me by post, for some problems were suggested. Very near to the same place a gold-crest was snugly perched on the back of a short-eared owl; and to talk first of the owl, these birds, pat to a local prophecy, came in quantity from overseas on the news—so it seemed—that the country was overrun with voles. One cock bird was seen to bring eight, one after the other, to its mate. She refused the last, which he then ate himself.

The golden-crested wren is much the smallest of our birds, though perhaps not much lighter than the long-tailed tit. Its tiny form went easily into a small match-box, and left a good deal of space unfilled. The wonder of this bird is its crest. It is proportionately bigger by a good deal than the most gorgeous headdress worn by a Sioux Indian. The crest stands erect, and is of a scarcely credible brilliance—gold in front and fiery orange behind, and in the midst shining with the polish of spun silk. It deserves also the name of its very close cousin, the fire-crest. A good deal of the wonder and mystery belonging to the tribe of birds—their quick vitality and passionate journeyings, are condensed into the little frame.

Many of us in the South regard the gold-crest as among the rarer birds, especially in winter; but their numbers in the island are immense. Among the vivider memories of birds is an experience in a Westmorland garden. I walked out just before breakfast, and found an evergreen bush as full of the birds as the lime tree in flower is full of bees. They took no heed of me whatever, though I was touching the bush, and some of them would stop for a restless moment within a few inches of my eyes. Observers on the East Coast have found the shore alive with them on a winter's day, many so wearied with the long journey that they would allow themselves to be picked up in the hand. There is, of course, a locus classicus on migration in which the gold-crest takes first place. Indeed, I know no passage in any book on natural history that surpasses it. Gätke, watching

migrants in Heligoland, found a space on the seashore alive with gold-crests whispering and singing. As he looked, just on nightfall, a few of them rose almost vertically, like the queen bee on her marriage flight, and called to the rest, and presently the whole throng of them, still calling, disappeared into the night; and Gätke finishes his description thus: "Later still, as we gaze upwards to the night sky, sown with innumerable points of light, we imagine that those myriads of shining worlds are all that moves between us and the Infinite, while all the time in the heights above us are travelling thousands, nay millions, of living creatures towards one fixed goal—small and weak, like this little gold-crest of ours, but all guided as surely as are the farthest gleaming stars."

The wrens seem to be endowed with peculiar vitality. We meet the common wren high up amid the snows on a Swiss mountain. The multitude of gold-crests, as well as their long journeys, is evidence of their endurance and of the immense range of their breeding places. They breed in the South, and they breed in the Arctic Circle. They breed as successfully in Northern Asia as in Northern Europe. As one looks at the minute body in the matchbox, it seems impossible that so much should be achieved by so frail a being. The beak is as thin and pointed as a pin; but what a marvellous weapon it is! We have no nest that quite compares with the gold-crest's. It is suspended generally under a fir bough on gossamer ropes, and the frame is built (as Miss Turner once saw) very much as a geometric spider makes its web. The frame comes first, and the padding later. The smallest birds are the best builders. The long-tailed tit, which looks about four times as big as it is, builds perhaps the most beautiful of all the nests, though the engineering

is not nearly so subtle as the gold-crest's. Their one rival among birds of comparatively greater bulk is the chaffinch. And the slender beak is at least as efficient in securing food as in the artist's work of building. Both the jenny wren and the gold-crest are marvellous foragers. Perhaps the secret partly lies in microscopic acuity of vision. No remnant of any insect is too small for them, though they will feed themselves and their young on good fat caterpillars; and the gold-crest is said to be peculiarly skilful in discovering and devouring American blight.

Was this little bird English or Continental? The latest and most scientific students of birds, or the anatomy of birds, aver that they can distinguish the alien from the English by the mere colour test. That strange army of immigrant robins which reached the East Coast last year in a state of utter weariness and hunger were alleged to be of lighter hue than our English robins, as inland foxgloves are lighter than foxgloves by the sea. The home-grown goldfinch is said to be lighter than the immigrant; and if this little body in the matchbox were sent farther for more expert inspection a verdict would probably be procurable from, say, South Kensington or Mr. Witherby, in High Holborn. The claim may be well justified; and it is, of course, demonstrably true that the hordes of starlings which cross the North Sea against the arrival of a Scandinavian winter are greyer in hue than the purely British bird. Such differences are being sought, and, perhaps, found, in other species which are both stay-at-homes and visitors, such as woodpigeons, larks, crows, and blackbirds.

There would be no excuse for an ignorant field naturalist to deny the existence of such nice distinctions discoverable when the bird lies dead in the hand; but, how

far may we decide in the case of a single specimen? As birds have their individuality in habit and behaviour, they have also their idiosyncrasies of plumage. This winter I have seen a certain number of woodcock; and they have differed so widely in size and in depth of hue that a good German scientist might be excused for labelling this or that type as a sub-species. The truth is that birds vary as men or sheep or rabbits vary. One goldcrest differs from another in glory; and this little victim may have been famous among his fellows for the fraction of a millimetre added to the splendour of his crest.

7.

One of the favourite winter walks in many shires is along the bottom of Grimm's Dyke or the Devil's Dyke or whatever you please to call the ancient fortification or boundary. When the cold wind doth blow and there is frost on the ground and snow in the air, the best walk is usually a wood, especially a beech wood. The leaves lie loose and yet consistently, like well-woven stuff, and, however hard or muddy, the ground outside the floor of the wood maintains its standard hospitality. The very colour of the fallen leaves, if they are beech, is warm and welcoming; and they give birds and many animals just what they seek. The blackbirds scratch up the leaves hilariously; the tits and pheasants, and often finches, robins, and wrens, find good picking there. The trees and bushes, however bare, break the wind, but let the light through. How very green are some of the mosses; and such stalwart plants as the blackberry keep their summer leaves quite intact till they are shoved off, still green, by the young spring buds. The honeysuckles, though enemy to the scientific forester, achieve a woodland charm quite beyond those on the common or in the hedgerow, and their fresh green leaves decorate boughs twenty feet above your head.

The neighbourhood has two scenic features that possess the virtues of the wood, with some of their own. Grimm's Dyke, which appears and reappears in short reaches all across the Eastern Midlands, becomes a wood with a narrow pathway through it. The high sides alone are enough to keep out the weather, and nurse a little extra warmth that both encourages plants and makes attractive lodging for several animals. It is full of life. Rabbits always prefer to start a burrow on a slope, and the preference is shared by the fox, which often enough adopts the home of its favourite victim. There is one such earth in one part of the dyke well known to me. It has steep and very slippery sides, which on one occasion proved the undoing of a small boy startled by the sudden appearance of a vixen just above him. If anywhere, here is the place where you may discover the precocities of spring, come upon the first bird's nest, watch the baby rabbit, or detect the first flowers of the dog's mercury, which may be called the grass of the woods; and, indeed, of primrose and bluebell in their season.

Grimm's Dyke was, of course, man-made, though the trees have planted themselves. Another feature of the country not unlike it—if one may compare the straight with the round—is less directly man-made, though the origin is not always surely known. It is a feature only found in the chalk counties, and is peculiarly characteristic of the edges of the Chilterns. It is always called the dell-hole in local speech; and well called. It is not quite a dell and not quite a hole. It tends to be circular, and is probably the result of chalk-digging by farmers, though sometimes the chalk falls in of its own initiative. These

dell-holes as a rule are marvellous nurseries of trees, though now and again you find one kept clear and subjected to the plough in open fields. I suppose the seedlings find good protection in their youth, but whatever the reason, groves of trees of especially good size and shape fill the circle. These, too, are a winter sanctuary for many creatures, though it must be confessed that they attract the exploiters of the steel trap and the wire noose. I have found lately an unusual number of wire nooses in various places; and perhaps they begin to take the place of the much more obvious steel trap. They are more elaborate and much more expensively made than those of an earlier date and boast a little cylindrical runner that could not be surpassed for smoothness. I have found (some years ago) a fox in a toothed trap and many a rabbit in a noose; and could wish that both instruments of torture could be prohibited by law. The other day a rabbit was brought to me that had broken (so strong are a rabbit's limbs) one of these nooses, at least a year earlier. The wire was entirely overgrown by flesh, as one sees a fence wire absorbed into a tree, and the little property piece was brightly polished by perpetual friction. Our little Edens are so desecrated, but they are Edens nevertheless.

Now and again one of these dell-holes is found within the pale of a garden. Much may be done with a chalkpit, a steep-cliffed mine out of which chalk has been dug within memory or at least record. There is, for example, the famous chalk pit at Bradfield, that very lovely Berkshire village. It became a Greek theatre, and some of the audience may sit "under the walnuts." Even these reluctant trees have found a niche there. I know one pit that is entirely enveloped in wild clematis; and the masses of old man's beard with hoar frost on their edges

look very strange and queer against the whiter walls of chalk. But the dell-hole is essentially different from the chalk-pit. It consists of curves, not angles. The trunk of the trees nursed by the concavity rise very straight. The good soil that has tumbled in and been deepened by the fallen leaves breeds an unbroken undergrowth—at least in the garden dell—and its sides have proved a congenial home for spring bulbs, especially the snowdrops. The place is more glorious to some eyes than the rock or scree garden often founded in a chance hollow, for the tree is the crown of plants. So think the tree-creepers which especially frequent one such dell-hole. They look like mice as they run up the straight trunks, and when one of their favourite trees crashed in a gale, they used the hollow for their cunning nest.



MARCH

A Story of Migration—Mediterranean Springs—Drought— English Skies—Precocious Spring

Ι.

CARCH is much the most exciting of the months; and among its special excitements none equals to the naturalist—the search for the first spring visitors. All the village is agog to see the first swallow or first hear the cuckoo. The migrants come like messages from the unknown. Some of us were discussing this mysterious way of a bird across the seas when a personal experience was told, the true and perhaps the most unexpected tale of migration in the chronicles. In a Berkshire garden in 1931 a young cuckoo was hatched just before the arrival of a guest who was an ardent "ringer": one of that increasing company who spend much of their leisure in the early summer in affixing aluminium rings to the legs of likely birds, especially of nestlings. The young cuckoo gave an opportunity not to be resisted. The ring was fixed, and in due season the young cuckoo set forth on his long journey to some quite unknown bourne, was it South? was it West? Even the Continent was conjectural. Was it Europe or Asia or Africa ?

The young cuckoo from Eton was to solve a problem, or a part of a problem, by a not undramatic sacrifice. Just eighteen months later it was seen perched on the bough of a tree by a native of the French Cameroons. He made a stealthy approach and with curious skill killed

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the bird dead by the agency of his bow and arrow. The ring immensely puzzled the hunter; and if the news of it had not reached the missionary's ears it might perhaps have been used to decorate the nose of the native's wife. The cuckoo is now famous, for it is the first English-African cuckoo of which there is authentic record.

Rings have been bringing many messages during this winter, a number of ringed starlings and some other species have been found on English farms. They have come from Finland, from Germany and several places in Scandinavia. We have learnt more perhaps during the last two years than ever before; and discovery enlarges the wonder of these seasonal journeys. "True and tender is the North "-quite literally; for all birds, with unimportant exceptions, choose the most northern limit of their journey for their nesting home and singing home. When we hear one March day the delicious note of the ouzel, the ripple of the wheatear, the tremulous cadence of the willow wren, the cicala-like chirp of the chiff-chaff, we know that they are all approaching their nesting haunts. There will soon be a group of green eggs in a scoop on the chalk down, or a half score white and speckled under an ingenious dome in the lowest possible bush by the edge of the wood.

How neatly all the pairs distribute themselves about the country. Some sorts, of course, are fastidious. The ouzels yearn for the West and North; and because they are rare in the East, they have lost their proper and deserved honour of being, on occasion, the first arrival from overseas. Ouzel, wheatear, and those indistinguishable warblers—except in song—the chiff-chaff and willow warbler and sand martin, are the chief March arrivals, the makers of the month's excitement. In spite of yearly alarms and excursions, the March cuckoo is not

accepted by the doubters as an authentic creature. Indeed, the March arrivals, even among these early birds, are perhaps fewer than is generally thought. Most of them wait till official spring is well in its stride. There are tens of thousands of observers who note April arrivals: the coming of the swallows, the cuckoos and the nightingales. The watchers for the pioneers are to be reckoned in hundreds.

How many of us associate the wheatear with the South Downs! No bird was ever quite so ruthlessly harried in the old days, when no gentleman's table that had pretensions to be "elegantly" served was without its dish of wheatear. The shepherds on the Downs were as expert in the snaring as the Egyptian in netting the quail, and both earned a good profit. We have happily changed all that, though the wheatear, in spite of protection, is less rather than more numerous. That splendid chalk ridge is never better worth a visit than in March, when these engaging birds hop over the short Down grasses as wagtails run on our lawns, and, so to say, "tread the ling like a buck in spring." For the bucks come first, by a sure instinct just anticipating their mates. When did the sexes separate, and where? We have lately discovered where the ouzels go to, one wave using the South of England as a mere stepping-stone to Scandinavia. We know all about the wheatear's nest. But you may search authority in vain for facts about the start of the journey. Though much briefer, the journey of these March pioneers is yet more mysterious than the great northern passage of the swallow.

March is the most exciting of the months; but it is more exciting in the West than the East. The first birds of passage for some reason prefer to land on the western part of the South Coast. The ouzel is a pure Westerner, to start with, and nowadays either comes earlier than he used (as the tits nest earlier than they did) or more observers have been on the watch. The first are likely to be seen in early or at least mid-March, not "late March or April" as the books say, and he completes the variety of the thrush tribe. Fieldfare and redwing visit us in the winter; thrush and blackbird stay at home (though they include migrants); the ouzel comes in summer only, with perhaps one or two exceptions. Some few will have it that the ouzel is the sweetest singer of them all. I have heard a Scandinavian claim the place for the redwing, whose song we never hear.

2.

On a Mediterranean tour a few of us—anticipating Browning by a desire to be in England in spring and like Landor, preferring nature to art—the anemone to Acre—drove out from Haifa in Palestine one early day of March to find spring. From the shining road of the flat valley we turned up a dusty track into the hills, and were soon lost in a fold. The bushes made an open wood, and some few were putting out fresh green leaves, a welcome change from the weeping gum trees, the dark cypresses and the grey boughs of fig and plane. "This is almost England," someone said with invincible if unconscious pride; but it was almost at once subdued by a sight too splendid, perhaps, to be English. Patches of the floors of the wood were as flush with scarlet as any of our spinneys is blue with bluebells. The sight-seers had found what they sought: "Eureka—let us stop the car!"

In each country spring has a particular herald, clad in his own uniform, and making his own announcement.

One may go farther to say that each country has its own primrose—its rose of the first months, or should one say—since Lent means spring—its own Lent lily? The coldest and more barren regions all at a favourable hour blossom like the rose. They have their golden moment. Certainly Palestine has, however barren with dust and rock it may appear when winter comes and yet more when summer comes. The master flower beyond all question is the scarlet anemone. It is as brilliant, though rather darker, than that favourite in English gardens, anemone fulgens, opens so wide that at the end it changes from a cup to a plate and discloses the full circle of the beauties that have earned these varieties their botanical name, Coronaria. The anemones, the wind flowers of English woods, have as modest a habit as any violet. In Palestine, as in Greece, the anemones challenge attention in open places as well as among bushes. There are scarlet patches alongside the railway from Haifa to Rehoboth. Anemones, white, blue, and scarlet, show the road to Acre and dot the flat plain of Marathon, in company with the sweetest of all the daffodil tribes, the two-headed jonquil, and a small-flowered iris, so deep in hue that the leaf quite outshines the blossom. The English spring is modest. These more Eastern springs flaunt.

In a company of travellers, the historian and the natural historian conflict a little. The direct object of very much travel is to see and hear about the wonders of art. Nature takes a second place. Who would look for flowers in scenes supremely eloquent of the fame and courage of the Knights of Jerusalem? Nevertheless, it may be reasonably argued that the battlements of Rhodes, certainly the most glorious island even in the Aegean, in its history, its architecture, its natural strength and beauty—that those famed survivals of the mighty knights of Europe are

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more surely and fondly remembered for the discovery of a bee orchis among the antique stones. And I do not know that the glorious charge of the two wings of Miltiades' little army is less vividly realised because one of the memories of the level shore where the Persians beached and lost their ships is a little mauve and purple stock.

Now and again a flower or its discovery may be so exciting that more essential things are quite forgotten. What in the world is this strange plant? Mosque or battlement, siege or crusade, preacher or warrior must wait for a while. A superior interest has arisen. The plant's dark, coarse leaves spread horizontally over the ground like white-leaved thistles. In the midst of the circle are arranged as neatly as if a florist had been at work, a bunch of lilac flowers, almost stalkless. The thing is more queer perhaps than beautiful. It challenges curiosity, and against all the treasured canons of the Floral League is uprooted solely "for edification." The long root parted from the ground soil reluctantly, and, perhaps, if we had listened, with a scream; for the plant after prolonged investigation in a text-book (carried by a Scottish traveller of charming zeal) proved to be a mandragora, about which hang as many queer and inexplicable superstitions as the Barnacle tree. Though its leaves are a little coarse and its roots a little fleshy, it is free from the ill-omened appearance of such a plant as henbane, which expresses poison in every twist. Certainly it makes a "purple patch," a purpureus pannus on the floor of the woods, but it in no way suggests the purple spots on the stem of the hemlock. No, the mandragora does not scream when you pull it up, and its plate of flowers is a pretty addition to the innocence of spring.

3.

All who care for the recurrent signs of the times, for symptoms of weather and season, must pay their tribute from time to time to that international group of observers, still in active function, who may be called the Apostles of the Calendar. These students believe that by the study of dates of appearance—the budding of the quick, the flowering of the blackthorn, the emergence of the bat, the singing of the thrush, the laying of the robin, the breeding of the fox—they will be able to create a new science, to discover hidden affinities and ensure safe prognostications: when the farmer should sow, when the fruit-grower should light his "smudges," when it is safe to "drop a clout." The British members at any rate, among these "phenologists," must be of a hopeful temperament. But who knows! We may yet discover why the dormouse obeys the calendar, but the pipistrelle the thermometer; why the blackbird sings only in spring and his cousins the thrushes all the year; why the hive bee is suicidal and bombus terrestris a master of common sense; why the daisy sees April in December, but the bluebell waits for its proper month. Can it be that January warmth is related to March dust, or to-day's song prophetic of to-morrow's sun, or mood a product of astronomy? Perhaps, but it is a peradventure that, if solved, will be solved last in England. Yet all our villagers are phenologists. They remember with unblemished accuracy exactly what occurred in what date last year or even a generation ago. The storm of 1916, the drought of 1921, remain vivid events; and tradition holds particular records of wheat cut and carried in July in the early 'fifties and rivers frozen over in a night in 1861. And they believe in the prognostic anticipations of their doggerel seers.

A recent expert on the weather, writing in America for Americans, noted how we associate particular countries with particular types of weather: England, for example, with rain. This instance seemed especially to impress him. I should like to take him to Shotover, the lovely hillock overlooking the lovely city of Oxford. We should find acres of black ruin, floored with the crumpled leaves of bluebells. The forest fire—si parva licet componere magnis—was bred and brought on by mere dryness. February Filldyke—for we also libel ourselves—produced just one millimetre of dampness in its extended 29 days, and that was in the form of hard snow. The railway banks are black. Many broad acres flame and smoke with fires intentionally lit. The grass fields burn as freely as a pine forest in Oregon. The wells are low in the clay-founded villages of the Midlands. The subaqueous holes of the voles in southern counties are no longer beneficently hidden. The tilths are dusty; and if dust were any longer permitted on our too perfect roads the yellow-hammers would enjoy delicious dusting baths. England—wet?

Now wide spaces in America that were almost desert for want of rain were made to blossom like the rose by the art known as dry-farming. It consisted chiefly in a skilful scratching of the top inch or so of surface and preventing evaporation in the manner of a low cloud. Every garden in England, every tilth, has been dry-farmed, not by the difficult labour of man, but by the beneficence of our climate. Morning frosts have crumbled the surface almost to the whiteness of a dusty road; and beneath the nap of this blanket the earth remains as moist as if our country's reputation for rain had been justified to the hilt.

The prognosticators, the phenologists, the oldest

inhabitant, the birds and beasts, insects and plants have no second sight. Our island climate is proof against correct prophecy. Yet seasons have types of weather; and the old ignorant country sayings, like the pet phrases of a parrot, come into their own often enough to ensure their survival. The best are not assertions, but aspirations; and at the head of these comes the golden value put upon a quarter of a bushel of March dust. There is peculiar value in drought. It is, for example, the condition precedent to the fine wool of Australian sheep, though it slays its thousands by its wasteful and ridiculous excess. Excesses are not common in England; and a spring drought, a word we delight to use on the barest excuse, is marvellously beneficial, not least, as in Australia, to the lambs. The golden quality of March dust had doubtless no reference to animals. It came in a botanist's prayer, in the calendar of a gardener or farmer who liked to lay his tiny seeds in dust composed of no larger particles than themselves. Below they would feel a kindly moisture, rising just to their roots and no farther, and above the tender seed leaves would be unbruised. The cradle where the truest wealth of the world is rocked is a dusty seed-bed.

Of all things, insects, both those we welcome and those we shun, benefit most from dry winters and springs. Wet is the worst enemy even of our hive bees; but it is more deadly to their cousins, the bumbles, to the wasps and gnats, to hibernators, to chrysalis, and to eggs. So if, after denying the efficacy of the prophets and of those who would find useful correlations between March and July, an inference from cause to effect may be ventured—the summer succeeding a dry winter will be most grateful to the entomologists, not least to those highly practical entomologists whose nestlings can only flourish on that carnal diet.

4.

An Australian, new to this island, asked me a few days after landing, whether we often had "clouds like those." I looked up and saw the daily but, to most of us, never stale spectacle of clouds following one another across the sky like newly-dipped sheep across a meadow, or fishing smacks across the bay. The usual south-west wind was their shepherd dog and the pen doubtless lay somewhere on the other side of the easterly ridge topped by elm trees, behind which they galloped out of sight singly and in little groups. Each hurried, though vainly, to get in front of its neighbour: "The clouds the clouds chase," said George Meredith in the daintiest and completest of his lyrics; and that is a game no poet and few countrymen can watch without a pleasure that may amount almost to excitement. No one, of course—not even Aristophanes-was quite such a devotee of the pastime of cloud-watching as Shelley. His head was among them; and their praises poured from his lips. But most countrymen are "cloud-wise."

Now different countries may reasonably boast of atmospheric pictures distinctive of their clime. I have lately come from an island where it did not rain at all during my stay, but it was seldom that we were out of sight of a rainbow or a bit of a rainbow. Dim across the sea were half-revealed and half-concealed the high cliffs of a desert island. They drew mist and cloud, and within the film was held, like a flower in a spider's web, a perpetual broken shaft of purple, green and orange. It looked almost straight and vertical, not very greatly varying either in length or brilliance. One came to regard it as a settled feature of the sea and landscape,

"A rainbow's arch stood on the sea,"

and stood, like the sea, "immovably." Shelley's rainbow "stood"; and in an earlier poem it is written "I do set my bow in the cloud," or "and the bow shall be in the cloud." The phrases suggest a sort of permanence. In contrast it is strange to think that in a rainbow, however still it abides, the whole form is made and remade every particle of a second by a new refraction from a new drop of water. It is built and scattered even more quickly than Shelley's ghost-like Cloud.

This broken shaft of a rainbow against the desert island was the most constant but by no means the most brilliant rainbow. When you looked down any northeasterly street in the town, you were almost startled to see it crossed by a band of rainbow, as Fleet Street is crossed by telegraph wires. The misty clouds dived down the gullies in the hills and tossed their prismatic arcs towards the town. The higher you mounted the hill behind the town the wider and more glorious grew the bow till it arched the valleys in a good half circle. As the ship steamed north-east in a stiff wind and sunny air it carried as booty from the island a dancing atom of the rainbow in its company. It would need a long essay in optics, I imagine, to explain why the spray-bow was very blue and the cloud-bow quite without this colour; for rainbows differ more in their attributes than most observers recognise. The forms of the colour-bands as well as the colours themselves vary greatly. We have no such permanent rainbows in England. Our skies, often invisible for days, can never boast the southern blue. Suns rise with a more fiery splendour over the Alps. Yet, whatever we miss, we may claim to live under a shifting canopy as diverse in colour as a Persian carpet and a Proteus in form. The western sky becomes itself as bright as a rainbow throughout tumultuous March,

usually one of the best cloud-months of the year. Its features have been rare. Snow is always predicable from a queer yellow effulgence. Now and again we are given a strange admixture of thunder and snow, which mean that the cumulus clouds proper to thunder must take on the wildly prophetic colours of snow, in addition to their own conjunction of high light and deep shadow.

And these marvellous clouds, especially when they are dyed by a setting sun, colour to our credulous eyes the spaces of sky between them. The long slips of sky, contained by evening clouds of violet and saffron, stretched low in the West, grow green or take on "that peculiar tint of yellow-green," which Coleridge found and Byron scornfully denied. One may watch such clouds, such skies for the mere pleasure of shifting shape and tone, as in a narrow room one may watch the red and yellow kaleidoscope of a log fire. One frosty day the sky and cloud seemed wholly responsible for the ground colours. At times the snow was dazzling white, and the slight shadows in the footprints of a moorhen that had run across the lawn looked like black strokes. When a little gust made a sham snowstorm of the snow that had lodged on the boughs, the crystals flashed into diamonds; this in a sunny interval at midday. Towards evening, as we watched the royal pageant of the clouds, the snow surface became an unquestionable blue, and even the boughs of the trees appeared to have a blue lining. The snow had consented to the convention of the artists. How green, we said, the world below it will look before England is much older!

5.

The number of young things that greet the First of Spring depends a good deal on the weather; but pre-



cocity grows among the species that multiply in number. Tits multiply and on the 25th March, 1934, were already feeding young in the very shallow nesting box that was contrived by a visitor who was thought to know more about carpentry than about birds. But the criticism was dispersed by a pair of blue-tits, who not only nested there, but nested weeks before the due date. How the large family they always produce can live in those close quarters, how they can be fed before grubs and bugs and such rough monosyllables become frequent, passes conjecture. The sparrows have young, have eggs, and are building nests. They observe no regular dates, like the well-ordered migrants, who journey and sing and build as pat to the moment as "the catastrophe of the old comedy." Most strange of all, a new family of blackbirds fly about as if they were already old, and would be thought so if they were not still fed by the parents, both brown and black.

The blackbirds give instance of the most unexpected precocity. The cock bird does not time his orange bill as a rule till the almanac suggests the approach of astronomical spring. He does not sing in any old month, like the thrush or missel thrush; and since the lyric—save with thrush, robin, and wren—is correlated with nest-building, and belongs to

The wedding song of sun and rain,

we should not expect to find the blackbird's nest before we heard the song—the loveliest of all and most memorable. No one can fail to hear it or to recognise it when heard. What influence in the spring of 1934 inspired the blackbird? In two gardens, at any rate, the birds quite transposed the usual order: first robin, then thrush, then either tit or blackbird. That year in one we watched the

nest-making, and in the other saw the eggs before we heard the song. The experience seems quite to upset the theory as to "why birds sing."

Perhaps the blackbird is more obstinate than others, more proud to be *propositi tenax*. January was warm. Flower, insect, bird, and mammal, even the elect of each sort, were deceived.

As sap foretastes the spring,
As Earth ere blossoming
Thrills
With far daffodils,
And feels her breast turn sweet
With the unconceived wheat—

so life prepared for an early year. They burgeoned, they stirred in their cases, they paired, when belated winter came, cold and hard, but gay, nevertheless, with sun and midday warmth. The rest were checked; but the blackbirds, and indeed the tits, safe in their holes, persisted. They would not confess to an ill calculation.

We have often to lament tragedies among the early nests. The chaffinch that built on the apple bough before a suspicion of leaf or flower hooded the work, mossed and lichened her nest to a state of perfect neatness and no little likeness to the grey-green of the bark; but the owl, or some such "plaguey wildfowl," saw and snatched. The thrush who built for all to see was driven from her roofless pitch by snow and hail; and the skyblue eggs sticking to the once polished cup were left to decay or discovery by rats, that had not yet left the gardens where they find refuge from winter starvation. We have to chronicle in some bitter springs a succession of such tragedies, or failures, sometimes most bitterly felt. The birds will bring food again and again to the nest where no live young remain. Rabbits will suffer in like

manner. One doe, who nested in a garden, lost her brood and could not keep away from the empty nursery. When, in sheer pity, it was filled and trodden down she dug it all up, still nursing the unconquerable hope that some life might remain. Such things befall, but in general "the failure adds a gem to deck the crown of hope." The pair build again, and quickly; and it is seldom that they suffer a second loss. When the buds come the enemy, whether harpies or starvation, are baulked; and spring is spring indeed.

In this same abnormal month the anticipators have wonderfully flourished, though they are premature almost beyond memory. The bees have not died on the alighting board, nor the tits perished in their crevice; and was there ever a year when the young lambs so flourished in the straw shelters?

Every shepherd tells his tale Under the hawthorn in the dale—

especially in the dale, with rare pride in the completeness of the tally. Vigorous lambs butt the teats of healthy ewes; and hive bees return from rolling in the midday crocus, their thighs heavy with orange booty. Food can scarcely be plentiful for either bee or bird, but both find it. It seems to me that never have I known the robins (which are now nesting) so clamorous. The sight of spade or rake fills them with excitement. You transplant a bush, and before you have well extricated the roots a robin is in the pit, almost risking involuntary interment. Even as I write I see through the window a robin pursuing the gardener's rake as gulls follow the plough.

Surrender to this temptation to pre-date spring has involved unwonted energy in the search for food. Hence lamentations from many quarters of the raids on buds 100 MARCH

and the destruction of lawns. Beneath the level surface insect life has flourished as fully as the buds of the honey-suckle. Flies and the offspring of daddy-long-legs delight in dryness, whether warm or cold, as certainly as the ewes in the valley flocks. The thrushes are enjoying life. If there is a complaint, it is the difficulty of finding mud. Is this why they are for once later than the blackbirds? Hardly; for, after all, the blackbird, though she does not need it so wet, uses as much mud as the thrush by way of mortar, and is building a nest as heavy with cement as usual.



Gifts of the Sun—Instrumental Music—A Northering Herald

—The Bee and the Flower—A Friendly Robin—The Year's

Programme—The most eventful Date

I.

Three of the sunniest were 1921, 1933 and 1934. In each of these years our lawns were browned if not burnt, at least partially. On a rectory lawn, very carefully kept, the only green parts were the lines which defined the lawn tennis court. You could see distinctly just where every white line had run: was there ever better evidence of the value of chalking grass fields?

The sun, being fire, is a good servant, but a bad master; and happily in England it seldom if ever assumes the mastery; our only cause of regret is its absence for overlong periods. In all these years, but especially in the last, it did us service with a rare whole-heartedness; but most of the service was rendered secretly and remained long unconfessed. It baked the wheat grains till they glistened as transparently as "Manitoba Hard" on the plains of Alberta. That was plain enough; but we did not see, or perhaps appreciate, the enrichment and refinement of the inner sap, the formation of the flower bud, or the ripening of the buried bulb and well-fed root.

Horas non numero nisi serenas is a motto of flowers as well as sundials. They expand under the sun and sulk in its absence. The test of the season is the

flower. Putting out leaves to maintain existence is one thing. The efflorescence is quite another. Our own home plants and shrubs can do much with little encouragement. They are grateful for small grains of sunlight and are rarely acquisitive of its gold. The darkest or coldest summer fills the woods of next spring with plenitude of primrose, anemone, and bluebell. The constellations of the stitchwort as surely and regularly decorate the hedgerows as the Milky Way the heavens. Weather is no matter to them. Every March blooms the whins, and no year is recorded when a Linnaeus might not be tempted to fall on his knees and thank God for such hillsides of splendour. Our commons have no lean years; but are rich at every due season with thyme and harebell and bedstraw and avens and ling. If there is not a blackthorn winter there is a blackthorn spring, and the hawthorn spreads its rich incense in the dale with the regularity of a priestly office.

It is not so with the alien or even the half alien; as every gardener and every orchard keeper knows. Each year they record the tally of the previous summer. The plant that gives, perhaps, the surest index of all is the earliest of all, that soft mauve darling of the South, which we call iris stylosa. It was a wide and general experience of the spring of 1934 that it flowered with a glory and profusion seldom, if ever, before recorded by younger gardeners. We have pampered it with a warm and sunny shelter under a heated greenhouse and fed it with the poverty of soil that is one of its luxuries; but we have been lucky to wheedle a sparse blossom or two, that needed search among the bundle of concealing leaves. That year, even on less congenial sites, we could cut the blossom in sheaves, and they augmented in steady gradation through several months of the year: the single sprig of January

(or perhaps December) is the sheaf of April—a sheaf of stylosa, a miracle! The tribe ill distinguishes between root and bulb; but whichever it is fed by, it stores sunshine and expresses it in blossom.

May we hope that the same influence was felt by orchard tree and later bulbs? Though the sorts vary much (and who would compare a Bramley with a Cox?), our apples have what one may call a biennial tendency: they bear well not more often than every other year. It is not so in such paradises of the apple as the Okanagan Valley, where the rainfall is small and the sunfall is large. We can add water, but not sun; and so a yearly crop of ruddy fruit is produced. Jonathan has little share in the shyness of Cox. This fickleness is, in part, due, of course, to late frosts, to the necessary hostility of "the three Icemen" at their May festival; but, to speak roughly, the richness of the sap is expressed in flower bud, and its dilution in leaf bud. Last summer brewed the true ichor; and as we peregrinate our orchard and peer closely and curiously at the still reluctant buds, we think we see a satisfactory majority of the round and fat over the long and narrow: blossom rather than growth is our hope.

The alchemy of the sun is as subtle as potent. If you look into one of the loveliest gardens I know through the arch of the window, you look through rose-coloured spectacles: the panes are tinted with faint rose and lilac tints. These colours are the measure of the years of sunshine that the windows have admitted. The chemistry of the glass has been slowly altered by the ultra-violet rays of the sun, till the panes have become patently subdued to that they work in. Even so, perhaps, the sun influences the chemistry of the sap that flows in bulk, or between bark and trunk. At the sun's behest it creates green leaf

or rainbow flowers. Maybe it is the cause of that curious phenomenon of bud variation whereby one single shoot of a plant may discover a permanent quality, unknown before to the rest of the tree. So was the red Cox born. But these are mysteries. All we can hope from last summer's sun is that the kindly fruits and lovely flowers, one after another, will acknowledge the influence already expressed by our sheafs of iris stylosa.

2.

The oldest and much the best garden in the parish is a paradise for unusual birds. The long path that leads to the pond cuts a lawn gloriously ribbed and paled in by evergreen trees and bushes, except for one corner, where you look under the beeches; and may descend to the strip of woodland, whose high trees show over the garden shrubs. It is one of those gardens that subdues everything to its own quietude. Even araucarias and laurels become lovely things. To listen, to watch, indeed to talk in such a place, is a liberal education, is to be librement occupé, that delightful phrase for pleasant idleness. One day, as a group of us were so engaged, our idle talk was interrupted by a loud and hollow rattle, slightly ventriloquial, but by common agreement coming from a high tree, and we knew its origin before someone saw the bird. A greater spotted woodpecker was performing his spring piece.

The tree had one dead bough, hard and white as a bleached bone; and this was the bird's instrument. Was ever so strange a method of lyrical production? There is, of course, a theory held by some few of our best naturalists, including the editor of *The Field*, that this black and white woodpecker has the same method of song

as his green cousin, who laughs with hilarious gusto by aid of the same instrument as other birds, the syrinx or musical box, composed by its vocal chords. I do not deny the bird's guttural capacity; indeed, it is exceptional. If a young bird falls from the opening of the nest, as happened one day in a Herefordshire garden, the unfortunate screams so loudly that it may be mistaken for the human child. The lesser spotted woodpecker, which also is reckoned among the drummers, has a call not very unlike a blackbird's alarm notes. The greater spotted woodpecker is therefore capable of making spring noises with his vocal chords; but that he also makes them instrumentally by tapping on wood in the manner of a tom-tom is a general belief too certain to be questioned. Last year one of the drummers was watched at close quarters by a family of ornithologists, old and young. They did more than watch the bird hammering the dead bough as a blacksmith his anvil and with as cheerful a noise: they put their ears close to the trunk of the tree, and found the sound came to them with greater emphasis. All doubt of the mechanical nature of the music, so to call it, was removed.

This handsome bird has multiplied exceedingly during the last few years. For example, two of them have been drumming persistently every morning and every evening on a delectable hill just outside Oxford; and it is to be hoped that the efficient Trust which has preserved this wood—a haunt also of the nightingale—will not in its zeal for modern forestry destroy all the trees that have passed their best and are used for timber dwellings by owl and woodpecker. The too efficient forester working within a pale of barbed wire may be a poor friend to the naturalist. Now in that particular wood the tapping on the timber is a constant spring sound; but no black and

white woodpecker has been seen. The green abounds and breeds in known holes. Some residents believe (with W. H. Hudson) that the green woodpecker also is an instrumentalist, though the idea is now discredited. Is it, after all, so certain that the green woodpecker never follows the method of the two others?

Mechanical lyrics are not altogether rare. The greater and lesser spotted woodpeckers drum with their beaks on hollow wood; the snipe drums in the air with its vibrating feathers, so accompanying the poetry of the cadence of its flight. The wood-pigeon, unsatisfied by the iteration of its sentimental croon, zooms up into the air and claps its wings over the back with a rattle. The little ecstasies of spring flight are patterned rather like the zigzag of the tree pipits, and, though the pipit sings with charm during the gymnastic, the flight of both birds is as definite a part of the lyric as when rook and, more saliently, raven, tumble silently in the high air like stunting aeroplanes.

The snipe, perhaps, should most enjoy his peculiar music. His manœuvre is the opposite of the skylark's, who soaring ever sings. The snipe's Aeolian harp is only musical when the high, rapid, wayward flight gives place to a dive, only less straight and quick than the stooping of a hawk. The singing of the air through the quivering feathers must be a glorious accompaniment to the speed. What is most delightful in an aeroplane, at any rate a small open aeroplane, is the pleasant subdued rustle that follows the shameless noise of the toiling engine. The glory of such a sensation must be felt by the snipe as he plays this musical antic. The sound is usually compared with a bleat, and the crude comparison is true enough, but heard above the marsh in spring (as I have heard it at Wicken Fen, and indeed in many another marsh)

it is of the air aerial, of the Fen native; and like most notes heard in the wild, the scraping of a grasshopper's wing, the shrill disyllable of the great tit, or the cawing of rooks or the rattle of the wings of a flying swan, it pleases the sense without any reference to its ideal sweetness. The ugly note becomes beautiful like the araucaria among the garden cypresses.

3.

It is possible in these days to accompany birds on their long journeys. The airmen have flown alongside both our swallows and German cranes. Twice I have voyaged a little way with some of the warblers which are accustomed to rest on north-going ships. One year as our ship, after swinging round the southern promontories of the Peloponnese, turned a little northwards towards Italy and the Straits of Messina, it was boarded by a small company of birds of several kinds, and one of them, more tired perhaps than the rest, remained on the deck and allowed itself to be picked up and nursed. It showed no fear; and responded mildly to an offer of water in the palm of the hand. It dwelt peaceably in a cabin for the night and flew away "with unconfined joy" on the next morning. The bird was not of an English breed; but had some likeness to the wheatear, the rather long tail with the white feather and the black stripe above the eye, though a white stripe was below it.

Many of the birds that appear on shipboard are a mystery. They seem to be out of place and quite astray. Certainly no theory of migration routes would account for their presence there and then. Why should a small bird, or, for the matter of that, a big bird, journey fifty miles West from the coast of Spain on a rough March

morning. There is no food for it on "the unharvested sea" and no rest for its feet except the occasional ship. Yet birds commonly and at many seasons come aboard ships crossing the Bay of Biscay, some of them small birds and weak flyers, some of them strong winged hawks. The hawk—sailors say—is one of the commonest. This mystery must explain itself. The small birds of the Mediterranean in spring are a constant and explicable phenomenon.

The ship doubtless had covered a line of migration, and stragglers from the fell, weaker vessels, had welcomed the chance of a rest, or found the temptation of something that looked like land irresistible. When we begin to look into the mystery of migration we find it to be not one mystery, but many. There are birds whose whole being seems to rise to a strange ecstasy, who become capable of scarcely credible feats of both power and endurance. They rise to great heights, course with unerring aim through the night, and perhaps reach a high pitch of speed. The pair of swallows that travelled twice each year for a number of years from West Africa or the Cape to a barn in Aberdeen must have needed almost supernal powers. But much migration is a hop, skip, and jump. Many of the warblers fly low and by day, at no great height and at no great speed. Few, perhaps, exceed some thirty miles an hour. There seems to be no rule about the grouping of the pilgrimage. Some companies are large, some very small indeed, and single birds will drop off on to ship or island as the spirit moves them. So far as may be, they drift across the sea as they drift about the land, moving by easy stages to their ultimate home in the North and West.

Among the most determined migrants across the Mediterranean are the quail, which both depart from Africa and, in autumn, arrive there in great flocks; and being weak fliers, momentarily tuned up to the great adventure, they cross with a rush and peculiar impetus. The drifting, the slow distribution over the new continent, begins thereafter, and varies much from year to year. A few, for example, came last year all the way to England. Perhaps five or six pairs in all nested with us—in Norfolk, Warwickshire, and Wales. It is one of the mysteries why so many birds are stopped by the Channel and North Sea after crossing more serious ditches. Why should the willow warbler darken the sky over Heligoland and cross the North Sea in myriads when the icterine warbler, a strong flier that abounds in Holland and Northern France, never sends a single spy?

March is the date for the coming of the earliest migrants, and we are accustomed to regard the wheatear as the very earliest, though most of us do not see it first. It delights especially in the South and West and in the Downs. When you watch it on a favourite down, running about almost like a mouse, flying scarce a foot from the ground, and as fond of its legs as a cock pheasant in February, it looks of the homeland homelike, and your least thought would be that it could or would venture on a great aerial journey. Probably the majority cross the wide westerly end of the Channel, for most of us who have our being towards the East side of England hear and see a score of chiffchaff and willow wren before ever a wheatear is rumoured. Yet now and again a single bird will appear early in March on Hampstead Heath before the chiffchaffs announce themselves at their favourite haunts in Beckenham and Dulwich, both of which, in spite of their urbanity, have claimed several first appearances. Our scientific ornithologists have worked out, with the help of rings and other pointers,

the principal highways and routes of migration of many species. But from the small birds few rings have been traced, and the arrival and departure of the wheatears are peculiarly indeterminate. The greatest throng I have ever seen was in the east, not the west. They were drifting steadily down the coast of Norfolk, and had stopped for half a day or so, close by the Cley marshes. Perhaps second in my recollection were the long incursions of nesting pairs along the ridge of Lundy Island in May. They come early, but, I should say, are much slower to nest than the later arrivals. A pair of swallows will begin nesting on the pair of wheatear will not appropriate hole in the ground for a model clutch of green eggs—1 a rabbit hole on Stream first week of May.

A dry summer with to follow makes a re sequence in Engl watch with interest of such associations. rare sequence in England even excitement the The bees prove to ! flourish when season hobblers, limping c , that call for the shepherd's knife. T e almost as active as their prancing infants

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lusty health that went with a dry air was proof against this jeopardy. They returned to the hive not a penny the worse and slumbered again; and just at the right moment again revived to the proper work of the season, the fetching of water and the clearing out of the winter refuse. Within twenty-four hours of the revival, the clean alighting board looked as if it had been sanded, so thick were the sweepings there and round and about it; and among the rubbish, among the ejects from the hive, was visible no single victim of winter weather. It is true that the bodies of the dead are usually carried well away from the hive, though much of the other rubbish is dropped at the first possible moment; but this spring the careful watcher has discovered no single burial.

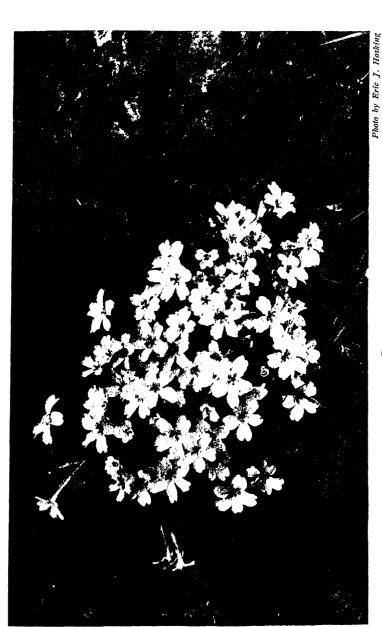
When you watch bees after the spring work has begun, the labourers increase day by day, and among them the percentage of the food-gatherers also is steadily progressive. A fortnight ago it was quite rare to detect among the homing bees any member obviously laden with any burden heavy enough to slow its flight or thicken its thighs. Now the majority are so well laden with pollen that you can mark them from afar and they pass into the interior of the hive in a slow purposeful way, like a dog carrying off a bone for secret storage. The interior jobs of cleaning the comb, of sweeping the floors, of strengthening particular cells grow fewer and fewer. There is little need in the cool fresh airs of early spring, always sharpened by its aliquid amari, for detailing a large rank of workers to the task of ventilating the hive. More and more is the mind of the hive concentrated on providing pollen for the coming generation.

Yet perhaps in earlier days the less quick-sighted observer was deceived. There were more food-carriers than appeared. The first supplies come from dingier

flowers. Although no colour in any part of the year is more regal than the empurpling of the elms in February and March, the separate flowers are inconspicuous enough and the dust from them self-coloured. An odd bee may have been lucky enough to bathe her thighs in the bowl of an early crocus; and she looked like a creature of another birth when she came back to the hive as conspicuously picked out as the ends of the wings of an orange-tip butterfly. But the general source of supply was from a less conspicuous flower.

The only flowers open near the hive were primroses; and it seemed a pity this most English blossom, most delicately scented, and rich with large stores of honey, has no attractions for the hive bee. "Thrum-eyed" and "pin-eyed" primroses have given most of us our first lessons in the mechanics of fertilisation; and yet no flower is less popular with the tribe of insects. The whole of the pretty devices, the dark centre, the pointing lines, the green hollow, the golden dust, the translucent spike, the sweet scent and savour, prove useful only—so it is alleged—to one hover-fly, little known to the general observer. However this may be, the bees, eager with spring hunger, pay no regard whatever to the primroses flowering freely not ten yards from the hive. The bees fly past and fall with hurried greed on the bank of aubrietia and single arabis. It is worth while growing the simple, plain, dull, little original species of the au-brietia solely for the bees' sake. It is the earliest and the best loved. The workers even anticipate its opening by tearing the closed petals aside.

The primrose is the least popular, if we except the double daffodil—and such flowers have really little right to be double. The multiplication of petals is a growth of over-civilisation, welcome but sophisticated. The



most popular, beyond all question, is the willow catkin: it bears the palm, if one may say so. It is to the pollen harvest what the lime is to the honey flow or the ivy to the starving lingerers in late autumn. It was an event a month ago to see a bee return with yellowed thighs. Now golden streaks tumble on to the alighting board as catkins rain down in a spring gale under hazel or poplar. And yet it is the duller, not the yellower palm that is rifled. What an energy of work! What a busy hum! What a multiplication of active life! Is there any such contrast in the methods of making the world go round as in the hive on the slope and the pond at the foot, where masses of frog spawn, inert and hideous, lie waiting the sluggish delivery of the season, as if they represented the elemental emergence of living tissue from the colloidal slime of an uninhabited world?

5.

One April day I visited a neighbour with the intention of making a survey of our two gardens, especially in regard to the number of nests, but it rained and we stayed within. The rain came down with delicious softness and steadiness, and as we watched it through the window there came a tap on the pane. A very lively, long-legged, spindle-shanked, knock-kneed robin demanded attention. The window was at once thrown open, almost with apologies for its previous inhospitality, a chunk of brown bread was cut with apologetic hurry, and a chunk of butter laid on. The slice was then laid on to the luncheon table. After one short visit to the sideboard, where the bread had been cut, the robin descended on the buttered piece and got to work.

All this while we had been aware of a shrill, insistent,

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almost petulant little succession of squeaks from the outside window-sill; and now there appeared a second robin, very much fluffed out and looking rather in a fuss. She stood half in, half out of the room, with her mouth open, uttering from time to time this cricket-like note. It was a demand for food; and the braver bird responded with singular emphasis. He seized a bit of butter, flew back to the window, and stoked his exigent mate as if she were a stove. Well into her open mouth went his beak, and if the butter was particularly adhesive, he had to repeat the stoking four or five times before her mandibles quite cleared his mouth of the supplies. The process was repeated interminably. Her desire to absorb and his readiness to impart seemed equally insatiable. The manœuvre seemed unlikely to reach an end, when I tried an experiment and put the bread and butter in my hand and stretched it out. The cock robin, perched on the edge of a chair within two or three inches, cocked his head on one side, and looked alternately at me and the butter. He would have fed again perhaps, for his courage is unbounded, but at this crisis the falsetto cries of the hen ceased. Xanthippe was either sated or apprehensive. He flew back to her, and the pair of them whisked round the corner to the nest. It is only a few feet from the window, some eight feet up (very high for a robin), in ivy that runs up between a buttress and the wall. Had they concealed some of this butter in their mouths, and was the mother filling herself with infant or predigested food, or was she just hungry and a little greedy?

The scales are weighted in favour of her greed; for this performance has been witnessed daily for the last six weeks. The hen made the same shrill demands, and the cock satisfied them with like generosity. He will feed himself on occasion. The other day, seeing no butter, he came to the head of the table among the break-fast coffee things and opened his mouth in the very manner of his spouse. Sausages were the food of the moment, and they were really so good that he allowed himself a certain indulgence. He is as nearly as possible fearless, though only now and then consents to perch on a hand: but devotion is his strong suit. The cock robin is a singularly devoted parent in most families. We watched one the other day feeding his mate on a table provided by a gate-post. But for her stalwart form and very red breast one would have thought her a youngster. Not a bit of it; she was a hungry mistress demanding food and attention from her master.

The sequel to this episode in a robin's life illustrates some of the bird's feelings. The friendly cock robin did not return to the favoured room in the next spring. Instead he went to the back of the house, visited the kitchen and established a friendly footing with the cook. The change was not due to any fickleness or to a too general friendliness. Whenever he came near the old window, even on to the lawn in front of it, or the corner of an orchard beside it, he was furiously attacked and always routed by another cock—it was thought one of his own offspring.

Most of us have known tame robins. They have built in our bookshelves, or fed on our tables or perched on our spades; but we have often been not quite sure whether the hen or the cock was present. The tamest in my gallery learnt its friendliness at the foot of an artist whose dry breadcrumbs it ate; and developed its apparently morbid appetite by the accident that it was called to feed a young cuckoo. It would take food for this purpose from the hand of anyone, acquaintance or stranger, and always fly straight off with it to the in-

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satiable youngster. The behaviour of this pair indicates, I think, that the cock is the braver or less cautious of the two, perhaps in most species, though one may feed some hen birds, greenfinch for example, and blackbird, on the nest. But we must not generalise; certainly not from the robin, which has no compeer in his friendliness towards man. Is it so, all over the world; or does "Willy Wagtail" run him close in Australia?

6.

It is a pretty habit of the authorities at Kew Gardens to put up each week at the gateways the things most worth seeing at the date, sometimes particular plants, sometimes a bed or section of the garden. Now that modes of motion have accelerated, and walkers, cyclists and motorists all go far afield on the more gracious Saturdays and Sundays, it would be welcome if someone would write such a notice for the Gateway of England. It would be possible to prepare a calendar that should be both spatial and temporal; and record exactly what bits of England were best worth visiting at particular dates for their several beauties. Every day and every pause have their festival for those who know their canonical calendar.

Some of the celebrations are only for the high priests. They set out on particular days to secret spots to feast their eyes on rare beauties, which must be kept from the knowledge of the profane. I regarded it as the very highest compliment when a friend (whom I had never seen) offered to show me the haunt of an English gentian, which has as bright a blue, "perhaps even a brighter"—what delightful fondness in this postscript phrase!—as any of the gentians of Switzerland, or, it may be, of Tibet,

whence new booty of this genus has just come in the satchel of Mr. Kingdon Ward. I once caught out a great botanist on his way to visit the rarest of the pinks in the Home Counties. This secrecy of the botanists is nothing to the secrecy of the bird-men. Most of us in Southern and Eastern England stop out some April evening to hear whether the nightingale is back again in his old haunt; and rejoice to tell our neighbours. The live bird at least is in no danger from its popularity. Behaviour is quite different when we hear of so rare a bird as the kite being seen in its nesting neighbourhood. I shall never forget the sudden hush in the voice of a great bird watcher when he told me of the presence of spotted crake in a particular marsh. We were in the wild, out of sight of so much as a house or a road; but his almost instinctive caution, almost religious reverence was not to be lightly doffed. A little bird of the air might carry the news to some acquisitive collector or photographic publicist.

It is not always safe to confess the whereabouts even of a common flower. I was once indiscreet enough to give the exact latitude and longitude of a meadow of Lent lilies. The owners of the paddock were presently bombarded with requests from trippers, who had made special pilgrimage to the spot, for leave to pick; and if it was refused, the pathetic plea was added, "Just a few for mother's grave." It seems to be a generally recognised appeal! Certainly it would be indiscreet to set up a notice, on the Kew model, at all the wickets of England. Kites, Dartford and marsh warblers; Cheddar pinks, lilies, and butterfly orchises; even copper and swallowtail butterflies must be saved from the dangers of popularity and collectors; but most of the more lovely appearances of the British seasons are by no means caviare to

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the general: the purpling elms, the hillsides of gorse, the heather moors, the woods full of primrose and bluebell, the thyme and harebell and bedstraw of the commons, the singing larks and nightingales, the glory of the flight of swallow or buzzard or dove, the chassé or patrol of Brimstone or Peacock butterfly need suffer no sacrilege from the multiplicity of worshippers. Wordsworth, who had the philosophy of nature worship, hit an essential truth in lines that have become, thanks to the peculiar genius of the English people (as well as of the Lake poet), almost the most hackneyed in the list. He had been looking in spring at the Lent lilies; but enjoyed them most months later when imprinted on the inward eye that is the bliss of solitude. It was Keats who wrote:

Yes, in spite of all Some shape of beauty moves away the pall From our dark spirits.

We miss a constant pleasure or a pleasure that we may tap at any time if we do not go out to see the several scenes or hear the music in the pageant of the seasons. Some have a charm not widely recognised. In Australia, where the excess of glaucous evergreens makes the contrast especially welcome, everyone delights in the spring foliage of the weeping willows (sprung, it is said, from a slip imported from St. Helena) that hold up the banks of the great rivers. Most of our country people, sharing the task with the bees, pick "palms," which are the male flowers of a sallow—and their gold is not necessarily more beautiful than the silver flowers of the female tree. They take little heed of the willow; but of all spring sights, is any more memorable, in Wordsworth's sense, than the first budding of the falling shoots of the willows of any species? My inward eye has registered no tree

more distinctly than the weeping willow by Magdalen Bridge at Oxford, and perhaps its fellows by Clare Bridge at Cambridge possess a more general delicacy. It is only less important to see the early willows—on Lea, Thames, Cam or Isis, or where you will—than to hear the nightingale in a Surrey spinney or Berkshire hedgerow. As for gardens, I know no flowering shrub that can excel the spring charm of a certain Salix Vitellina pendula when it first pullulates. It has all the virtues of the Babylonian willow without its melancholy.

All weeks of the year have their prizes, but nowabouts is the crowded hour. Who would miss the plum blossom that dresses the valley of Evesham or the bluebells that will soon fill every other open wood, and even the bare islands of the West, with their blue mist, or the anemones, or the blackthorn, at last coming out, or the brushy buds of the chestnut and heath, or the songs of any warbler, or the blue eggs of the thrush, or the water buttercup swinging in the stream? One little angulus terrarum I know where the sweets contracted lie. It is on a common. In a clump where the cherry and gorse flower cheek by jowl and the russet leaves of the oak break, the nightingale always sings, and is often in rivalry with the lark, whose dark eggs lie in grassy cups here, there and everywhere.

7.

If there is any one day in the year when more things happen than on other days, it is April 17. That is my experience, and for various reasons I have long taken very close notice of the day. It is more than likely that statistics may not support the theory. It is their way not to endorse our beliefs; and, of course, what is true of

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one county or parish is not true of another. Nevertheless, it holds that round about the very mid days of April the bright things of spring come together like the golden rays of a dandelion flower—" a thousand golden arrows at one mark, all hitting." You hear and see, perhaps, what you expect to hear and see; and to some, expecting the note of the nightingale on April 17, and making in the evening to a favourite clump, the passionate note sounds pat to the date, the deep bubble and at last the long, thin-drawn cry.

By their songs we know them, or most of them, especially the little warblers from overseas who come to nest with us. Is there any man who dare say that he can distinguish the chiff-chaff seen in the open from the willow-warbler by the gift of his eyes alone? Most of us would have doubts even if we held the bird in our hand. It is one thing to tell us that the smaller size, the more rounded wing, the duller tints distinguish him, but what do these amount to when the restless bird is making his busy patrol from twig to twig, however near he comes? Happily the notes are as different as the bodies are alike. I heard the chiff-chaff one year on an oak tree in a garden on April 6. He was full of cheerful chatter, and few birds sing more consistently. He is the only warbler, I think, who resumes his song as he leaves in autumn. In the garden of a cheerful rectory in Cambridgeshire capacious traps are set in autumn for the migrants, who are caught up and ringed. It is not a branch of science that I like; but that is neither here nor there. Last time I was there the willow-warblers were walking into the cages one after another and would else have been quite unseen, though the autumnal note of the chiff-chaff had been heard many times. The best singers are often more parsimonious of their music; and



we must put down the willow-warbler among the best. I heard him first that spring on April 16. He stood on a low bush, and as he sang swayed his head this way and that, and so helped the wavering intensity of the song; and the gestures diminished with the natural cadence of the notes. We heard and saw in the same place, and at closer quarters, a robin in full spring song. His piece has little regularity of form, like the willow-warbler's, much less like the chaffinch's, and is not suggestive of passion or even emotion. We may ask of it the Wordsworthian question:

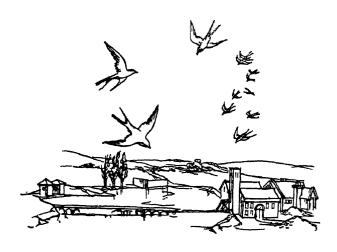
Or is it some more humble lay, Familiar matter of to-day; Some simple sorrow, joy or pain That has been and will be again?

The clear, plaintive numbers flow at least as easily as those of the Highland lass, but how surprisingly they shake and agitate the whole body of the bird, as if he were rising to the pitch of a great artist's ecstasy.

The song of that date was another home bird's. Again and again rang from the trees the broken ripple of the nuthatch's monotone, loud and cheerful, though between whiles he has another note, louder and less cheerful, that approaches the shrillness of the great tit, who, with the cock pheasant and the groan of the greenfinch in autumn, has the distinction of uttering the one note that is definitely disagreeable. How often a group of us peered into the budding trees that lovely spring day to catch sight of the singer, and how often we failed! The harvest of our ears was always greater than the harvest of our eyes; but once the singer dived from a high beech to the brushwood with a flash of blue where the sun touched his back that might have been reflected from a king-fisher.

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Of those that come in April almost the only bird that we see much and hear little—therefore despising too much his beautiful song—is the swallow. Numbers of them were flying over a famous haunt of birds on April 15. Many of us make pilgrimage to the high bank of the Tring reservoirs, by the summit of the famous canal, in order to see the duck which enjoy the waters almost as much as the Staines Reservoir. It is an attraction also for smaller fowl. The swallows—real swallows, not martins or sand-martins-were there cutting their gay figures of flight in numbers when we were lucky to see the glimpse of a single pair of wings in less happier places. They, too, like the diving nuthatch, might earn the kingfisher's praise and be called the blue bird of April. The late spring does not keep the birds from their due dates of arrival; and since the buds are later we have a greater chance than is often vouchsafed of identifying by sight the singers who have both delighted and baffled us.



A Marked Swallow—A Snake in Eden—Life by the River— The Bird and the Garden—Bee and Blossom—Where Shakespeare was English—Later Migrants—A Hereford Wood

I.

ngg (In the garden of a cottage, off a lane leading uphill spleasing to swallows. One pair nested there for four consecutive years, perhaps more; but only the four are surely attested; and one year they brought up four consecutive broods. In a later year the place, which is most persistently and affectionately watched, was the scene of a triangular duel fought between three species of birds, all seeking congenial spring nests. For many years a pair of swallows have built and bred in a shed standing at the corner of a cottage garden in the Home Counties, as the swallows too might name them. They are awaited each year with vivid expectation, and the shed is kept closed against the competition of less popular birds, till the swallows are seen. This year, owing to a temporary absence of the cottage dweller, the shed was opened earlier, lest the pair should arrive and feel the inhospitality of the shut window. This was on April 21. At once a watchful wren, who also delights in the shed, entered and began to build in what was left of last year's swallow's nest. The Jenny wren was the first competitor in the field.

Unhappily possession did not put nine points of the law in her favour. Her work was taken over, and she herself evicted, by a pair of sparrows who began to

stuff their untidy straws, bents, string, stuff, feathers, and what not into the damaged mud walls. At this point in the conflict the owner returned and was disappointed to discover no trace of the migrants, which in the past have been singularly punctual to date. So the pleasure was all the greater when at last, on April 28, one swallow was seen, and it proved to be the right swallow, the very same bird that had brought up several broods in the nest last year. She was easily recognised by two distinctive points of white on the tail feathers. The pleasure did not seem to be shared by this swallow herself, she was all alone; and a child looking at her said, with the sympathetic insight of which some children are capable, "How miserable she looks. Do you think she has lost her husband on the journey?"

The explanation seemed not unlikely; but the swallow's cheerful friendliness soon came back. On May 1 her gloom had departed; she had found a mate and the two at once betook themselves to the old shed. The sparrows had by this time been turned out along with their rubbish by the offended owner; and as the various occupants of the relic nest had played havoc with the luteum opus, with the mud walls, they were in part restored by human manipulation. The pair gladly accepted the alien assistance, however clumsy in comparison with their own work, and remained in occupation of an almost completed home. They are as tame as robins, and quite evidently regard the owner of the hut as a friend. It is always interesting to have new proof, though none is needed, that swallows love to return to the very same home they left last year, and that they keep its memory green, in spite of the intervals of time and space. For this double journey was not likely to have been less than 5,000 miles.

The fondness of some birds for human houses is curious. Where did swallows build before man's eaves were provided? Caves, after all, are only to be found at the sea-side. Did they then adopt the resource of the sand-martins and nest in holes? Wrens of course have a special liking for the outhouse. I have watched one this year build a part of no fewer than three nests within one deserted hen-house. The first and second were so insecurely perched on the top of a beam that they fell by their own weight, unless it was that a rat climbed up to them. The third is now completed in the opposite corner, and is neat and firm. Since no eggs are laid, it is probably a cock nest; and by what strange freak has it come about that the male of the wren, almost alone among birds, has a fashion for building nests that will never be used? With what furious zest he goes to work, till the roof is on. When so much is accomplished, his zeal will as suddenly flag, and the nests remain unlined till they collapse. Is it possible that they are meant for shelter? After all, the wren is one of the few birds that will take refuge in old nests for roosting when winter is cold.

The loveliest buildings of the year are found in the early days. On one morning of early May I saw nests of the long-tailed tit—on a briar bush—of a chaffinch on a willow stump, and of a golden-crested wren under the bough of a Douglas fir. These three come first in skill and delicacy of execution; and two of them are usefully adapted to their surroundings. The canopy of the fir bough—this bird's almost invariable choice—conceals the nest from above, where perhaps concealment is most necessary, and the green tidiness may always be mistaken for an accidental thickening of needles to the gazer from below. Chaffinches' nests, which are yet more neatly

woven, may be singularly obvious when built in a thorn hedge or bush; but on the more distinctive site, the bough of some lichened tree, they may appear as a mere gnarl or continuation of the bark. One can find less reason for the lovely lichen covering of the long-tailed tit's, almost always woven among the twigs of briar, thorn or gorse. But after all, bird or rat, not man, is the enemy against whom precautions are more instinctively taken; and the tits are more seldom ravaged than either golden-crested wrens, sometimes harried by sparrows or chaffinches, who often suffer from the owls.

We may provide the birds of our gardens with nesting materials. It is indeed an amusing aid to observation to hang up supplies of moss, wool, coco-nut fibres, horse-hair, or such material. It will be freely taken; but the swallow is the only bird within my knowledge that will welcome direct assistance in making up the nest. But then it is one of the very few birds that uses the same nest both for successive broods (occasionally as unbelievably many as four) as well as in successive years if any of the structure remains.

2.

At the edge of the Devil's Dyke is a vanished village built by the Belgians rather more than 2,000 years ago. Not so many remnants remain as of that Saxon village lately unearthed on the hill behind Penzance, but enough to prove its village nature. It lies alongside two parallel trenches, some twenty feet deep and fifty feet across the top. They have been modernised by the latest diggers to the disappointment of a local archaeologist who dated them at about 2,500 B.C. The attraction of these dykes appeals to the winter pedestrian in January, but they are

more freely frequented by villagers, especially the children, in May.

If the attribute indicates disparagement, the Devil's Dyke or Grimm's, it is ill-named. Wherever short reaches, or sometimes pools, of it have survived, they are of singular beauty—vistas of Eden, to which, it is generally understood, the Devil was always an occasional visitor. These Devil's bits (to steal a name from an agreeable flower), have peculiar attractions in spring. The steep sides of the dyke, often as long as a cricket pitch, are dotted with bramble and holly; trees such as oak and beech springing from the bottom have been drawn to a goodly height in very straight pillars, till they triumphantly overtop the ramparts thrown up by our stone-age ancestors. Four-footed creatures have found the banks suitable for tunnelling. There are dwelling holes in some of the older trees, whose roots half exposed on the lower sides trace seductive patterns. If you wish to find birds' nests or hear the migrant warblers sing or to be enfolded in the blue mist from the wild hyacinths, your first choice of a walk will be down the Devil's Dyke.

The choice was exercised one soft and odorous day. Plants breaking through the dead leaves let loose the smell of very spring; but, as you savoured these, you became suddenly aware of a stronger and more pungent smell, the quite unmistakable evidence of a fox. In a suitable air, even a dull-sensed man can detect an earth at the distance of a chain or more. No wonder that hounds can run a fox with their heads in air and at some remove from the actual line. This earth was soon discovered, and not by smell only. On the polished mud in front of it, hammered into a path by the to-and-fro passage of dog and vixen, were fixed by a strong iron

rod three exceptionally powerful steel-toothed traps, grim and pernicious implements wherever they are found. In one of these struggled a cub, surprisingly well-grown for the date. She was caught by the hind foot and had pulled the trap to the full length of the chain so that she was able to lie well within the cover of the earth.

It was not easy to release the unhappy victim. The spring of the trap was too strong for the fingers; and the mud below the trap was soft with heavy rains. The cub showed the invincible pluck of its race, bared its teeth, and even tried to turn back and snap at the hands fumbling with the trap. I have seen a much older cub thrust its head out of an earth and bite the spade of the labourer who was digging it out. On this occasion it bit furiously into a coat thrown over it to make easier the work of relief. At clumsy last the steel teeth were opened, and the cub, pulling out the damaged leg, collapsed in a heap in the mouth of the earth. The rest lasted only some thirty seconds. After one quick, alert glance backwards at the relieving party, it slipped down the earth to the nursery below. The next morning two children went back to look for any signs of the litter. The vixen came out, and barked at them with such intention that the youngest bolted incontinent and rolled down the bank. After all, there is no courage equal to the maternal in any animal. A rabbit will attack a stoat, a hedge sparrow an adder, and a moorhen a boy-to quote examples from my own personal experience—and a vixen anything in the world.

The essential brutality of the toothed trap needs no emphasis. All along the West Coast dogs, cats, foxes, badgers, pheasants, and other birds, even occasionally grazing cows, are hurt, maimed, or killed by the villainous device. It is the venomous snake of many an Eden. For

the moment another point in this episode may be underlined. In hunts that are proud to kill "a May fox" the cub might have fallen a season before its time. Now, in my experience—and, however limited and partial, it goes for something-almost all our mammals breed earlier than the conventional dates. Botanically, most of us antedate spring. Zoologically, most of us post-date it; and by a large margin. Last year I came upon quite active leverets in the first week of February. Many otters breed during the height of the hunting season; and in general the dates for the close seasons, whether legal or practical, are thoroughly unscientific in regard both to mammals and birds; but with birds we know at least the pairing and breeding dates. With mammals we do not; and so various are opinions on what should be matters of fact that, even among country people, many still hold that a hare has only two young at a birth. As for the toothed trap, at any time, breeding or other--!

3.

We leant over the edge of a little low bridge to watch the brown waters of the Lea roll down towards the Thames, from the old mill (honourably mentioned in Domesday) and the old inn that are two of the glories of the fair village of Wheathampstead, a village that not even the latest and least lovely additions can spoil. We assembled to look at the river and see what we could see of its teeming life. But observation from a different direction was forced on us. One of the lookers gave a little scream of surprise; and it was not without excuse. A bat had fallen from the bough of a sycamore overhead; and a bat on the nape of the neck may well startle the most iron nerves. The little animal

lay inert on the bridge; but at once seized a proffered stick, clung to it with instinctive tenacity, and allowed a complete scrutiny of its little person.

In the ordinary way and outside museums the most observant countryman has little chance of seeing the bat except as a dark shadow of movement, cutting sudden patterns in the material of twilight; and the many species of bat, which differ much in size, as the noctole from the pipistrelle, and indeed in shape, as the long-eared from all others—these are quite unknown to the general. You might live a number of lives in the country and still know much less of the bat than, say, the verger of Wells Cathedral, which is a famous home of half a dozen species. So we looked at this windfall with interest. What astonished the company was first the thickness and warmth of colour in his coat, a sort of foxy brown, brighter than a dormouse's, but suggestive of it; and secondly, the ludicrous resemblance of the face to a pig. Everyone who sees a weasel at close quarters for the first time notices its absurd resemblance to the mask of a fox: and everyone who sees a bat must think first of a flying pig. The suggestion comes probably from the little dark, you would say, cunning eyes. It was full sunshine when this little bat fell, and it could probably see nothing, or next to nothing, but the eyes looked as if they were taking note of everything with all the beady alertness of a robin. What a strange production, with the hooks on the elbows of the wing, with the queer slaty shrivelled membrane that makes a better wing for many purposes than any bird's, and with the wide round ears adapted for hearing the shrillest of all notes? The animal was unhurt by the fall and crawled with satisfaction into the crevice of the boughs of a shady apple-tree, and thence took flight when the evening moths came out into the orchard.

Several pieces of evidence suggested that the bat had been knocked from his perch by a bird. The tree, like the river beneath it, is always singularly populous. They say of the sycamore that it boasts a bigger surface of leaf than any other tree. The leaves are very wide, and, being in alternate pairs like the hands of a weather-cock, can grow close and yet allow each to catch the light. It is singularly dark at the centre of a big sycamore; and this one has a great growth of ivy to add to its darkness. When it flowered the sound of bees in the branches was as loud as any lime's continuous murmur. Later came a rain of falling blossom, and in autumn fruitful seeds will spin down in myriads. Pigeons nest up aloft, a wren in the ivy on the trunk, and unnumbered sparrows keep their untidy flats in the dustiest part of the ivy. It is rarely that some cock chaffinch is not singing from an outer branch. Probably, also, it is full of bats. At any rate, there is no place known to me where so many pipistrelles join to hawk gnats on a summer evening.

One bough of this sycamore stretches all the way across the stream. You could cross by it, if need were, for it is low. The lowness of that bough appears to be a most important fact in the lives of several sorts of creature. When the falling bat disturbed us, we were looking at a shoal of dace, some of them bigger than dace usually are. They take the fly like any trout, when the mood is on them, though at others they resort to nibbling, and will swallow nothing on impulse. Nowhere else do they rise as under or nearly under this sycamore bough. In the evening little circles break on the surface almost continuously; and you might think something was falling from the tree, if it were not that a small fish frequently comes out clear of the water; and if you can manage the light and its reflection, you may see the very fish. The

number of bats that flit there in the evening gives further symptom of the quantity of insects that assemble under that thick canopy and above the water.

Yet another animal enjoys both the sycamore and the river, and makes the best use of both worlds. The water has half undermined the tree and left a roof and hanging wall of roots. If you stoop low on the opposite bank and peer under you may see, if the light is good, a small patch of red. It is on the head of a moorhen brooding nine eggs on a nest much better hidden than moorhens' nests usually are. The sudden quack or croak of the old birds is one of the most constant sounds thereabouts; and every bit of exposed mud is marked by the salient pattern of their feet. They abound, though the dabchick is comparatively rare, all along the river; and on that particular reach show a curious preference for the sycamore roots as a nesting place. One year they built on the top of a flat sycamore stump, the most obvious site in the neighbourhood. The bird has often been described as essentially furtive, but on occasion it can lapse into the obvious as well as the vulgar sparrow himself.

4.

The old-fashioned farm is lamented. A labourer said to me: "These new-fackled farmers sow the field, lock the gate and don't touch it again till harvest; and that only lasts a week." He vowed that he could tell by the low straw where the wheels of the tractor had been. He condemned the new farming root and branch, as indeed the naturalist may condemn it from another angle. Our iron instruments for farm, garden, golf links, woodland, and the rest may, it is true, be juggernauts and break up homes if not lives.

"And crash the cruel coulter passed." Our Cambridge rollers on dry tilth or young corn may roll out the scrapes and, indeed, the nest of plover. Our tractors and cutters lay waste the haunt of the corncrake, which migrates in despair from the grass meadows by the Huntingdonshire Ouse to the wild shores of Pembroke or the marshes by Newcastle. The fairway mower, taming too much of the wilder common, passes over the snug nest of the lark; the ivy on the wall is trimmed too close by the gardener's shears, and the wrens miss their favourite site on the well-clothed trunk; the proper forester deprives owl and woodpecker, and even nuthatch and tree-creeper, of their properest homes; the mechanising farmer destroys his most English hedgerow and on his shriven acres no birds sing. All this is true. The birds love their farms and gardens and commons, nevertheless and notwith-standing.

On a beautiful and most modern intensive farm in Worcestershire several acres are devoted to raspberries; by the nature of the crop the rotary cultivators work only between the rows: there is no transverse ploughing; and this the plover have discovered. No single nest was put in the midst. The birds decided that in medio tutissimus ibis meant between the plants, not between the rows. We found several nests. The birds pay little attention to cultivator, whether man or machine, and are only a little disturbed by the sprayer. The eggs were warm and neatly arranged. It happens, I suppose naturally, that the thin ends come together in an automatic neatness of package; but how is it that they are generally, as in this particular case, true to the compass, consisting of four eggs, pointing North and South, and East and West? The idea is perhaps mere fancy (as our pet discoveries are apt to prove in the eyes of science), but MAY.

there it is; and strange things do happen. It is curious how soon animals grow used to machines. In one orchard, cultivated mechanically between the trees, the tractor driver, who delighted in birds, could stroke a missel thrush on her nest if he was seated on the tractor, but could not come within ten yards of her if he was on his feet. They grow used even to lethal weapons. I have seen pheasants feeding happily between butt and firing stand while busy rifle practice was in progress. The bullets must have passed within two yards of the birds' heads. Some birds seem to be attracted to machines. How the yellow-hammers enjoy nesting on railway cuttings and embankments!

In one wood some of us spent a good while looking for nests, and found none, till we came to a clearing, noisy as a blacksmith's shop with the hatchets of the fellers and the faggoters. Their mechanical tapping was rivalled with the energetic song of the wrens, and we found not one, but several nests, all built into upright faggots, and you would say that other pairs were waiting impatiently for more faggots to be up-ended! Robins, too, were building there; and we heard the song of the nuthatch for the first time. Any garden almost, unless it is too utterly tidy, is liked by birds—one garden of my acquaintance had a tally of sixty odd nests one year, not counting sparrows' and starlings'; but it is often a little surprising to find the birds' preference for the mechanical. Last year a thrush built on the supports of a wired protection and a post set up to defend and support a young apple. Robins like rhubarb pots and tits old pumps and starlings any pipe. As for wood-pigeons, they will make a nest of bits of wire.

The ground-nesting birds, plover, lark, pipit, pheasant, and partridge, should find the competition for sites

least severe. The ground is a big place; and most of these, unlike the duck and moorhen, which build on the same level, avoid the trouble of accumulating material. How then does it come about that these birds are more often disposed than others to share nests? It is quite common for two hen pheasants to lay in the same place; and it is surprising when this happens that the two agree in delegating the subsequent labour. I knew of one pheasant which brooded in solitary content just twentyone eggs; and it is hardly likely (though possible) that she laid them all herself. She has evaded the crows and rooks, who have both this season proved in some degree carrion. Three nests, more or less contiguous, were less fortunate than this philoprogenitive hen, which may have twenty-one chicks. Every egg in the three was sucked dry—it is thought by the rooks, not the crows. A score of them rose from the place. The harpy proved a worse enemy than the juggernaut. We must lament such tragedies; but nature has compensations. The cover is deeper in late May; the power to lay fertile eggs is unabated; and like the larks, robbed by boys on the common, they will yet nourish their second broods safely and happily.

5.

A year of blossom, wonderful beyond the records, may introduce a new practice to the villages of South and West of England. It has seemed to one or two fruit-growers a pity and a waste that orchards so compact of blossom should be almost silent. The hum of insects is only less desired than the wealth of blossom. Bees have dwindled in many districts, and English honey become a comparative rarity. In walking through the marvellous

orchards of the West, of Hereford, in especial, and Worcester—some commercial orchards, some private—we noticed not once or twice the entire absence of insects. The sprays now kill the noxious insects with success. One orchard, a marvel of scientific production, was sprayed five times since the winter washings; twice before the bud opened, three times later. The harmful insects that live on flower and fruit, the capsid and the sawfly and the rest, with lichen and fungus and such illplaced growths, had no chance. The sprays even killed the canker that had defaced some older trees. Again, reluctant boughs and trees are ring-barked and persuaded into bud-blossom rather than leaf-blossom. New tillage and watering and manuring and grafting and budding all add to fertility; and we may feel some assurance that more and yet more blossom will appear on the trees.

Blossom, above all apple blossom, is a boon in itself; and spreading orchards add to the springtime glory of England; yet what is apple flower without the promise of fruit? We have new ways of ensuring the setting of the blossom. "Great is juxtaposition," and when Cox and James Grieve flourish cheek by jowl the shy blossoms are more likely to be fertilised. Juxtaposition of complementary sorts can do much for such desirable consummation; but the native agent in the work keeps her place. The orchard desires the bee, now as when an ancestor of Charles Darwin let his imagination play about the marriage of the plants. Bees are proper inhabitants of all gardens in apple time; and the orchard where they flourish is, of course, twice blessed: the apple is persuaded to make fruit by the same act that fills the hive with honey. Must we, then, all become bee-keepers, and learn the delicate and—to some of the more susceptible the dangerous art of keeping bees, of keeping them snug

and warm in winter, of shielding them from enemies, of regulating their internal economy, their swarming and queen-rearing and the rest, and of mending their many maladies? Many more of us desire bees than desire to keep them.

Now, it is a pretty habit in Yorkshire, and, indeed, in many parts of Scotland, to help the bees in their migrations. We move them, like the Vicar of Wakefield, "from the brown bed to the blue." When the heather blooms the hives are taken to the hillsides—it may be to the far side of a loch—and set down where the flower is thickest. Bees, no doubt, will travel far. In the ordinary way, when the trail of scent is hot and seductive, they will make a point (as foxhunters dealing with an animal of a more fallible sense of smell) of at least a mile and a half. Yet the eager working bee is too keen on the scent; when the journey is so long and the attraction so great they will wear their wings to shreds and die of the exertion within a few weeks. That is not a fate we wish for our benefactors. Hence the Scottish and Yorkshire custom. Is there any reason why the same habit should not be observed in apple orchards? It is not common, but it has begun; and promises well. Here and there a Worcestershire orchard owner, who has, perhaps, drawn his inspiration from farther north, offers the bee-keepers the hospitality of his orchards for the season of the blossoming; and the offer is welcomed.

The honey flow is a pretty technical phase; and is almost as distinct a thing as the swarming; and the best and earliest is the flow that comes with the opening of the apples, when we hope to see the backs of the Three Icemen, and the new warmth adds vigour to the young bees just coming to their prime. A passion for honey enters the hive with the sweet scent of the blossom,

whose doors are thrown open with a brave invitation to all such guests. Some flowers are self-fertile, and pollen may pass from anther to stygma by other agents than the bees; but an orchard-keeper cannot, like the fond cultivator of a peach tree under glass, go round from blossom to blossom with a camel's-hair brush and paint his flowers into fertility. He has need of the hive and its thousands of inmates, and the wiser will satisfy the need.

A near parallel to the apple harvest in England is the citrus harvest in Palestine: Cox's Orange and Bramley's Seedling are our answer to the orange and the seedless Jaffa. Now in the orange and grape-fruit orchards, that multiply at an inordinate rate between Jaffa and Jerusalem, bees are being rapidly multiplied; and it is claimed that the orange honey of the Holy Land is yet sweeter than the honey of Hybla and Hymettus. The orange has the happy way of flowering over many months. The fruit and the flower are seen together, like the young and the eggs in the nest of a brown owl. The bees therefore must be resident; and, in fact, hives grow to be a common acccompaniment of the orange grove. The honey flow is not the sudden thing it is in Kent or Worcestershire, and does not give a like opportunity for such brief, seasonal migrations as some ingenious fruitgrowers would foster. We are growing more apples. Let us grow also more bees. They are a generous tribe, of whom Virgil, an enthusiast in their culture, ingeniously wrote:

Sic vos, non vobis, mellificatis apes.

6.

They know the best of England better who have seen and heard spring break in Shakespeare's country, both in latitude and in vital spirit the heart of England, as Michael Drayton knew and said. By a happy coincidence the arrival of spring coincides often with St. George's Day, with Shakespeare's day, or thereabouts. Then it was that the heart of the dragon of winter ceased to beat. Shakespeare, of course, was too wise to describe the scene in any set fashion, as Scott described Scotland. England does not submit to generalities. It is compact of homes that have no general likeness, except that each is cheek by jowl with other homes, cottage near cottage, field next field, spinney sweetly linked to spinney by the slender spinneys that we call hedgerows. Shakespeare was not botanist, like Goethe or Lord de Tabley; or even as much ornithologist as Tennyson (who lamented that the stuffed birds of South Kensington were unknown to his youth). So he was free to speak through the sense of humble and unlearned humanity. His music falls like the song of a chaffinch or rises like the scent of bluebells, or hangs wavering in the air, though always near the ground like a heath butterfly.

If you stood on St. George's Day at the door, say, of the brick and timber house from which Shakespeare's uncle farmed, looking across the dimpled fields to the treed knoll beyond, you had the freedom of the scene where his rural and never literary nephew listened to the wandering voices of the cuckoos, just arrived; and instead of saying consciously, like Wordsworth, that they could give him intelligent answers, he found the phrase, "the sweet o' the year," rise to his consciousness, to be fitted later to the mouth, not of a sentimentalist, but of a messy scoundrel. On that day the chiff-chaffs talked as continuously as the wind in the trees. You woke to the tap, tap of the woodpeckers. I never heard the missel thrush sing with such gusto—a melody as full of

repetitions as the song-thrush's, but varied by as liquid a whistle as the blackbird's, and distinguishable from both by mere loudness.

Perdita and Autolycus met; and to tell the truth neither they nor their folk ever went much nearer to Bohemia or Sicilia than the space between Warwick and Stratford, between Arden and the Avon. The bear in the play is as unreal as the daffodils are English. That was why the picker up of unconsidered trifles sang one of the sweetest phrases in our tongue, and the princely shepherdess described the loveliest bouquet in literature. How lovely the primroses were that day—and, indeed, it was a supreme primrose year—and the daffodils and the very early bluebells blossoming here and there in a southern shelter. The Avon is no Amazon, the elms are midgets beside the karri, the fields are but geometric figures rudely outlined; the copses climb no hills, and flowers are few beside the spring carpet in the Alps; but comparisons, with apologies to Dogberry, are otiose as well as odorous: you do not want "boss words" in an immortal lyric, where rhythm, rhyme, and sense and sound half reveal and half conceal the inner glory, like the leaves of the sweetbriar, where the white-throat builds.

The Shakespearean spring was the spring of the unlearned, who did not know what vernal means. Its note was merriment, in which the daffodils danced to the tune of the thrush:

When daffodils begin to peer,
With heigh! the doxy over the dale,
Why, then comes in the sweet o' the year;
For the red blood reigns in the winter's pale.
The white sheet bleaching on the hedge.
With heigh! the sweet birds. O, how they sing!—

The thief enjoyed the spring with a gusto not exceeded by the maid whose lovely list also begins with daffodils that are sung open by solely English birds in the days before the migrants come. On those days the blackthorn began to bleach on the hedge; and the thrush sang—how it did sing!—and the jay shrieked. The days were bound to Shakespeare's days by the unbreakable tradition of English fields, that subdued Bohemia and Sicilia to their native quality.

Snitterfield, the ante-room to Stratford (whose only unruined approach is along the Warwick road), meant, it is alleged, the clearing in the wood. The trees were more and bigger in Shakespeare's time. They were, indeed, more and bigger two years ago; but still the impression is left that you are always approaching a forest but never reaching it. This feeling about England was expressed by General Botha on his first visit to England; and it adds to our knowledge of England. As soon as you top the rise and survey that Warwickshire hollow you know the scattered trees are leading you straight and surely to the romance of the Forest of Arden, as real to-day as if it had never been cleared.

7.

A number of hoopoes have arrived in England in two successive years and their "crested and prevailing name" is full of myth and association to many who do not greatly regard birds in the ordinary way. Like the cuckoo, or the blue bird of March that we call the kingfisher, it has a salience belonging to some exceptional feature and habit; and, after all, birds' names are very affectionately absorbed into our language. Goose, eagle, hawk, owl, cuckoo, vulture, gull, and parrot, all connote human (or

inhuman) qualities that have nothing whatever to do with ornithology, or, may one say, as little as the Birds of Aristophanes have to do with their namesakes? And he was one of the many writers who found drama in the hoopoe.

It is a quaint and lovely bird, for which I would beg the closest protection. There is one reason, one and no other at all, why the pairs do not regularly produce their young in England. The crest is their undoing. They advertise their presence, and are known to be rare. I know of stuffed hoopoes—and stuffed bittern—in several houses, so brazen are folk in maintaining an advertisement of their crimes. We have restored the bittern as a breeding species. That genius in bird protection, Jim Vincent, has himself seen over three score of nests, and his tally increases considerably every year. Can we not restore the hoopoe, which, indeed, has bred off and on in England for a hundred years? The bittern booms on Hickling Broad to-day as freely as in the days of the Monks of Crowland Abbey or Hereward the Wake, and the ruff and reeve may follow his return, as we approach an age when no one shall hurt or destroy-or collect. The hoopoe is not so alien that our old trees should not house him as gladly as the owl and woodpecker.

This spring of most abundant blossom brings up a very vivid picture of the hoopoes that I saw some years ago in the Mediterranean. Walking down from the olive groves on the northern hills of Majorca to the plains of the south, we saw, in lieu of the kites high in the heavens, frequent hoopoe running about like domestic fowl under the almonds. These almond groves do not, in my eyes, come up to the splendour of the Teme valley or the orchards of Evesham and Pershore seen from Bredon or any neighbouring slope. The shire of Worcester excels

the island of Majorca; but in that warm and delectable island the smallholders grow white-blossomed dwarf peas under the almonds; it is a sight not easily forgotten when a hoopoe with a proud and erect crest runs down the row, rained on by white petals, a patch of moving colour and form in that white city, for the almonds, too, are of the white variety. Such a memory makes one greedy to add the hues of this merry bird to our habitual lists. How pleasant as one stood very still under a hedgerow—that best of May occupations—listening for the rough little happy chatter of a newly come white-throat to hear of a sudden the triple laughter of this quaint and comely bird!

It happens that he is almost the most interesting of the migrants. Swallows with rare fidelity will come back to the very same eaves after 7,000 miles of flight since last we saw them. They are singularly true to the point of home. Many others are like them, though less regular. The hoopoe, a most courageous migrant, is eccentric. It will fly north like the swallows out of Africa or Asia in search of its nesting home, and so obey the general rule that birds breed and chiefly sing at the most northerly point of their yearly journey; but while the swallows, like the storks, are constant to special routes, the hoopoe sets off on a patrol as wayward almost as the flight of a butterfly that zigzags upwards, downwards, and sideways on the impulse of wings too wide and splendid for steady guidance. An African bird that means to nest in North Europe will take the East Coast of Ireland on his way. Perhaps, indeed probably, the hoopoes that have occasionally delighted a few eyes in Devon and Sussex are birds of passage resting their feet, like the dove in the Ark, to prepare for further flight. But if they so rest, how can some resist a longer stay? It is not an idle or

rhetorical question. Some would stay, as past history proves, if they were let to stay, and were as little disturbed in the apple orchards of Sussex as in the almond orchards of Majorca.

Another bird, with a name and appearance hardly less attractive than the hoopoe's, is trying to nest here in the same southern counties: the golden oriole. Again a foreign memory or several foreign memories enhance the desire to add him to our nesting species. For myself, I grew most familiar with the sight of the bird round about some dismantled German forts near the bank of the Rhine. He was like a great specimen of our goldfinch, almost the liveliest of all the small birds that delight our eyes. The sun caught the gold bands of his wings as he flew from side to side of the old battlements; and any poet in search of a symbol might have taken him, name and all, nature and all, for a sign of the return of the golden age to lands where no forts were any more needed. Again and again in France I heard his flute-like notes against the rumble of cannon. He is the only bird that ever I heard which can challenge our own blackbird in the quality of mellow tune. He almost equals him in the quality of note, but, like the cuckoo, does not altogether avoid monotony. Sometimes he sings so loudly, so iteratively that, in Calverley's phrase, the thing almost becomes a bore. Yet most of us perhaps, at any rate in early May, may say with Wordsworth, even of the cuckoo,

—And listen till I do beget The golden time again.

We could welcome the golden oriole in our golden clime; and we should almost certainly claim him as a regular nester if those who knew of his presence were not afflicted with the sacra fames auri, the accursed hunger

for the spotted egg and pendant nest, if not for the golden wing. We may hope; and yet not six months ago a man came every Sunday morning to a neighbouring common and stretched his pull-nets for our own goldfinch in the very heart of an English paradise!

8.

One of the signals of the year, looked for and found over a long period by a naturalist in Herefordshire, has been altogether missing of late. Among the fine trees on Credon hill, commanding the valley of the Wye and protecting one of the most homelike villages of the West (a paradise too for the naturalist), are a number of chestnuts. They have always supplied a spring diet to the brown squirrels which have abounded in this spot, and indeed in the county generally. Now squirrels, even the brown, are omnivorous, or at least multivorous, but they are vegetarians first, and like nothing more than the sweet stickiness about the opening buds. You could be sure at this date, if you had the long experience proper to the happy native, of finding the ground littered with the relic buds dropped from the feast. The presence of the squirrels has been as surely proclaimed by this as it is in a semi-tropical garden in the Isle of Wight by the gnawed remnants of the fir cones in autumn. squirrels are as obviously proclaimed by such spilth on the ground as by their own delightful gambols in the tree tops, or their great dreys in the branches. There are no chestnut buds on the carpet of the grove as there used to be.

This region in the West is outside the range of the greedy competition of the grey alien, though that rodent flourishes now in Warwickshire, for example, in the

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Shakespearean villages of which I have written. The brown squirrel is thought by some to be reasserting itself. A group of Oxford biologists specially engaged in the study of "periodicity," or the temporal rise and fall in the numbers of our mammals, hold that the squirrel multiplies and diminishes in a regular cycle of years, and that the rise is now due. It is to be feared that they have reckoned without the eccentricity of the English seasons. The unhappy squirrels seem to have suffered heavy losses through the long frosts, and the chestnut buds are not eaten because the squirrels to eat them are few or none, like Shakespeare's autumnal leaves. One would have expected the woodland creatures, who have their being within the sanctuary of the woods, to be less liable to frost than creatures of field or lake; but it is not so; many squirrels died. Perhaps the heaviest toll among our home animals was taken from green woodpeckers, who could not get at the ants that are their favourite food. They suffered only less than the redwings from the North or our own long-tailed tits.

It is refreshing to see how quickly a few normal showers and a little warmth may blot out any abnormal defects of the past. Nevertheless the signs are still there, if you look behind the scenes. The greater number of the ground-nesting birds sometimes breed late, though they began to nest at the usual hour. One reason is that their first clutches are ravaged. Food is so short and cover so thin that the thieves have a greater temptation and an easier job than is good for their victims. Thousands of pheasants' and partridges' eggs are taken to feed the young rooks as well as the carrion crows. To give another example from Herefordshire, in the last great drought in 1921, the rooks were in such difficulties for suitable food—due in part to the hardness of the

surface of bits of ground or dung where grubs chiefly congregate—that they raided the hen roosts. One poultry keeper watched a rook flying awkwardly away with the head lifted and a hen's egg impaled on the beak.

The second clutches, now being laid, are rather smaller than the first, but the postponement is not necessarily harmful. With sea birds, the taking of the first clutches as authorised by law has apparently increased the species. This meant that the prevention of spasmodic theft after a certain date did much more good than the wholesale raiding of the first clutch did harm. The greedy rooks will not, of course, actually benefit the gamekeeper, but they will do perhaps very much less harm than he fears. In my experience of very dry springs, a large number of birds voluntarily surrender their first nests altogether. The diaphanous hedgerows and borders are dotted with nests full of eggs as cold as stones; and the blackbirds and thrushes and some chaffinches are building again. It was too frosty for brooding, and, peradventure, the young when born would have been short of the insect food that their health demands.

Is it possible that some of the parents—and all birds have quick minds—have this spring taken extra precautions to defend their eggs from the marauders? The question is prompted by observation of a particular partridge's nest. It is in a garden, up against the side of a paling that separates lawn from paddock. A stout stump of a decapitated tree leans over the nest, roofing it and protecting it from the North: but these natural advantages of site, guarding the nest from observation, as well as from weather, are not enough. Throughout the day the clutch, which will be completed this week, is completely covered with a counterpane of dead leaves. An acute observer might very well look close, or a rat

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run across, and hardly be aware of a nest at all. No egg is visible, and the hollow of the nest scarcely to be inferred. The dabchick, which is perhaps the most conscientious and subtle concealer of its eggs, seldom does the job so well as this partridge.

The method of concealment is perhaps not more effective than protective coloration. The partridges' eggs are, of course, to some extent saved by colour, though the uniformity of tint is not so deceptive as the spotted surface of the plovers' or the terns'. But this device alone would not serve the partridge. However artistically compounded to suit the surroundings, the mere number of the eggs would bewray their presence. To conceal by colour fourteen or sixteen, or eighteen eggs, would be beyond the scope of any art. How invincibly successful the mere coloration may be in a smaller clutch, was tested the other day on a tilth. A plover's nest at a few yards distance was pointed out to a very observant child. He entirely failed to see the eggs and nest, even with the aid of a pointer and the most precise directions. With such nests you must know exactly what you expect to see before you can see it. The eyes without the experience are blind



JUNE

The Mill and the Fish—A Woodman's Hint—A Butterfly
Tryst—A Wagtail Drama—Haysel and Haystack

I.

where it leaves the village. One is an antique inn and cottage, whose walls directly buttress the water; one is a wall supporting the garden of a fifteenth-century house. Though thoroughly native, the place suggests a famous Virgilean line:

Fluminaque antiquos subterlabentia muros.

These things are still beautiful, and speak the peaceful continuity of English villages. The charm of the ages still belongs to them; and is worth savouring before we come to later changes. Though the road crosses in front of the mill, and becomes more noisy and populous, at least on Saturday and Sunday, most of the sorts of creature that liked this bit of river, say in 1066, still like it. From the garden side, a pair of grey wagtails dance and hover in the air, as brightly as humming-birds in South America. Are any of our small birds more tropical and gayer in appearance? Though rare in the neighbourhood, and not often seen in Eastern England by the general populace, they keep a particular fondness for this populous place. The little grebes that we call dabchicks, though shy and furtive in all their ways (even to the careful covering of their eggs with a reed counterpane), still sidle along the wall and slip under overhanging

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blackberries, and creep into the mimulus, which has wholly occupied one low bank. And the list of the rare and the lovely is not yet complete. A kingfisher has a peculiar affection for the May tree that overhangs the stream from the garden side, and is even fonder of fishing for the many sticklebacks than the village children. Water voles, which, some observers say, are being driven out by the Hanoverian rat, are the commonest of all the bank dwellers, and will paddle close to the bank till they reach the kingfisher's thorn tree and are hit by the strong current of the mill race. The slot even of an otter has been traced there.

So far all is as it once was; but there are violent changes, noted with emphasis to-day by the fishermen. It is the hour of the Mayfly, which, in his rage for synonyms, the flymaker calls olives. Trout delight to move upstream; and time was when the best and biggest nosed up to the mill, could be seen from the bridge, and, it was rumoured, could be netted by Mr. Miller. There are still good trout in the stream; but they no longer feel their way up to the mill or frolic in the swift stream of the race. The mill is silent. The little gold-mine, as people used to say, is worked out. The wheel rots and will revolve no more. The antique and rough but effective village-made machinery will creak no more. The holes in the old oak beams, bored for the pointed handles of primitive candlesticks, are filled with dust and cobwebs. Lamentations for the end of the last of our country mills have ceased. The story is three years old; but the influence on the stream grows greater. The miller no longer sends horse and harrow down the middle of the stream to clear the weeds. The water is no longer held up to rush through the arch and carry obstructive silt with it. So the mud bank against the

old inn grows bigger, and humps of slime appear where once the stream was clear. The eggs of the Mayfly, laid on the surface, sink to an uncongenial bed, and no longer do the grey-green flies entangle themselves in the gooseberry bushes of the fifteenth-century garden. Whatever may be foul in the stream is caught for a while on the slime banks, and breeds unwholesome gases. So the speckled trout, which are as vitally in need of pure water as lichens of pure air, are as rare below the mill as lichens in London. And they give it a wide berth. There are no trout, or very, very few, within a good mile of the mill. They turn back in their upward journey at the "hairpin bends" among the deep sedges (where the mallard and one pair of snipe have bred). Below these the upper changes seem to be forgotten or are purged, and life below the stream, as well as on it and above it, is as of old.

The Mayfly rise. The cases, that look like corpses but are cenotaphs, float downstream, to the wonder of small boys paddling in the lower ford. The trout, whose tastes vary from hour to hour, swallow the fly sometimes while they are still water-beasts and have not yet reached the surface where air and water meet, sometimes as they ride on the surface, light as a dried leaf or fallen feather, waiting for the moment of delight. The stream is yeasty with life. Things that have crawled in the mud, that have lain dead as sticks, that have wriggled like worms near the surface, have leapt winged into the air, as though we had seen in the twinkling of an eye the secular evolution of the bird from the fish in the Gospel according to But the fisherman is wondering Charles Darwin. whether he will try a Cock-y Bondhu, a March brown or a yellow dun. Then the Mayfly, as if they had a common signal like a flock of finches, begin to rise in numbers, IS2 JUNE

and the diffidence of the trout and the doubts of the fisherman are together dissipated. The moment has come, and most of us who know the place may feel that if any scene excels this gentle river valley on a summer evening, Paradise is Paradise indeed.

2.

I have often wished that the wood might play a greater part in English village life. It is often private and its superfluous wealth of fuel—and flowers—is usually wasted. Everyone loves a wood (though some express their love by using its dells as dump-holes); and it exerts a beneficent influence. In my experience the three best naturalists in any given parish are game-keepers, shepherds and foresters. All three are worth the cultivation of any countryman, especially a naturalist. They are full of wisdom. To give a particular example: A woodman with a taste for natural history has more than once made a suggestion that might prove agreeable to many a gardener. The wood in which he was working is open and stately, with trunks that divided the spaces into endless naves and transepts. You could trace half

The tricks of art that builders learnt of trees;

the columns and curves of every arch known to Moor or Greek or Goth, with knots of the pattern of any and every device of tracery. Any wood is a beautiful place at any season, but it may be gloomy and almost forbidding in certain aspects, and at the best the majority of woods are strangely still and silent. The tinny cackle of a pheasant, the coo of a ringdove, the shriek of a jay, or the chatter of a magpie or jackdaw, may exhaust the list of vocal birds.

A wood may be silent and inhuman; but a clearing in a wood is seldom anything but cheerful in sight and sound. The authors of such cheerfulness were cutting undergrowth, and making much of this coppice wood into faggots. The small birds watched them, you might say, with gratitude, but impatience. They were doing them a double favour, letting in light and air, and pro-viding them with nesting sites. Within quite a small clearing we found in all five nests: three wrens', one hedge-sparrow's, all built into the upright faggots; and one robin's nest delightfully hidden in a hole of one of the stools from which the coppice wood had been cleared. The bird had laid dead leaves and moss in so subtle a gradation that you could scarcely tell where the nest proper began and the strewn leaves with the moss or the stool ended. The blessed phrase "adaptation to environment" or camouflage was perfectly illustrated. Well, faggots are cheap and easily come by. If three or four, perhaps even one, were stood on end in a moderately private place in any garden, it would be a surer attraction than any bird box; and attract a greater variety of species.

Some weeks earlier than this experience in the wood I had evidence of the same sort of general preference for a degree of openness. Nearly all birds hate stuffiness. Even in a hedge of no great thickness they build most often just, and only just, behind the fringe of leaves. Old yew hedges and many evergreen trees popular in gardens, and indeed Lombardy poplars, are often totally disregarded on account of stuffiness and dust. Now this is an article in the creed of the keeper of one of the best of the English reserves. A good deal of it is covered with thick sedge which some might think attractive to waterside birds. It is—within limits; but no single act has so

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multiplied the nests and so attracted new species as the wholesale cutting down of this sedge. Little spinneys and copses of it are left; and these the birds love, even so preferring the extreme edges. It was at the fringe of a riding, so to say, in one of these spinneys, that I first saw that rare and lovely bird, the bearded tit; and she was content, in spite of natural timidity, to feed her young within a few feet of the observer. The bird is among the most furtive and shy, but her nest, as the nest of that yet more furtive bird, the bittern, which I saw at as close quarters in the same place, both illustrated the common preference—even of the "agoraphobes"—for some such degree of openness.

Within this sanctuary it was particularly pleasing to find so many broods of so many species reared without mishap, since in other experiences of that year I had seen, not in one place but many, almost wholesale destruction. In one garden in Worcestershire, near the Shropshire boundary, exactly twelve nests of small birds were located and fondly watched. All but two were harried, and it was thought that some of the builders themselves were killed. The villains of the piece were a pair of tawny owls, who had nested at the edge of the garden in an ivied tree. Unlike most birds of prey-such as buzzard, raven, and peregrine falcon, which seldom kill in the neighbourhood of the nest—they had cleared the surrounding bushes and trees, and must have been harpies of a peculiar malignity. One of them actually attacked and routed the owner of the garden, and the same bird was killed a little later by a woman whom it attacked with beak and claw in the lane adjoining the garden. For myself, I have looked into the nest of just one tawny owl this year. It contained one egg, one young bird, and the half-consumed bodies of two young

rabbits. But it must be confessed that the bird is a born cannibal.

The worst enemies of birds are other birds, but the cannibalism is seasonal and brief. Many of the birds of prey nest rather early, and are only deadly when they have hungry young. When in flaming June the screen of leaves is scarcely penetrable to any eyes, and the grass and corn are lush, most nesters are tolerably safe. Almost all the visiting warblers are late enough to conceal their nurseries, and our own birds bring complete families to birth at the second and third attempts. The early losses and later successes of the long-tailed tits, who build the loveliest but not the best concealed of nests, had been strangely illustrated in my experiences of the season. All the first attempts failed: the nests were harried either by boy or bird. In spite of them we saw, nevertheless, large families of these daintiest of birds playing in company about the bullfinch hedges throughout the autumn and winter; and as frosts were not too severe, they added to the population of the next year.

3.

The grass slopes above Woolacombe in North Devon are very lovely in the time of the master flower of June, the wild rose; but by the sea the sweet dwarf Burnet rose takes the place of the dog and field roses of inland places. The grass hillside is full of flower. Contrariwise, some of the gardens are almost empty. There is one pitched on the steep hillside above the cliffs, much too narrow and rocky for the making of any sort of bed. In fact it possesses just one flower-patch which has grown up by chance among the gorse and out of the rock. It consists of spikenard, or, in more usual idiom, spurred

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valerian, of three colours: red, pink, and white. From a deck-chair you looked at the Atlantic through the tall shoots, and the sky was behind the blossoms. It was a subject of dispute whether the scent of the flowers (very different from the offensive valerian that is native, but rarer) was pleasant or unpleasant; but there was no doubt that to the senses of insects—and those the most gorgeous and strangest in our island list—it was the true spikenard, worth its weight in gold, as Horace, among other antique authors, acknowledges. Never in my life have I seen so many splendid butterflies so exultant in the power of flight or intoxicated with the taste of nectar.

One morning, before the dew was off the grass, the flowers, which had been unvisited by any insects more remarkable than bumble-bees and hover-flies, were discovered, as if by a common and instantaneous inspiration, by a round dozen or more of that lovely, partly immigrant, butterfly which we label with the libel of painted lady. There may be more beautiful butterflies, bigger butterflies, and butterflies with more powerful and gracious flight. Great coppers and swallowtails and Camberwell Beauties may excite the fancy of entomologists, but even these, if they could be seen in numbers together, could not have more delighted you with sudden brightness. Their colour and pattern are very lovely; and these painted ladies displayed every facet of their beauty. They were hungry and thirsty, eager for the ambrosia and nectar of this surprising Paradise. Some few closed their wings for a few seconds as they settled; but most kept them wide open, indeed sometimes so wide that the wings bent downwards like a coasting snipe. They stepped slowly over the crown of the flowers, sucking the honey of each floret with the long

proboscis that looks on a close view awkward and delicate both, but is perfectly designed for its purpose and seldom injured. As the shadow of the wings fell on the flowers before they settled, it frightened off the biggest and most buccaneering of the bumbles, as well as the lesser insects. They could not face the threat of such splendour.

When towards evening the painted lords and ladies had taken their fill of honey, they would settle on the hot walls of the house made of purple stone; and from such a base play a new game. They flew out at whatever passed them, presuming, perhaps, that any creature in the air was a painted lady. You thought that their eyes must be quick and sure, for no other butterfly ever flew near unchallenged; but they must see movement rather than colour or form. I tried them with success with gravel and a golf ball, and even a tennis ball. The watchers on the wall, curiously inconspicuous till they moved. challenged each missile as it passed across their vision. So will a bat, hawking flies and moths in the late evening, fly at any small object you like to throw in front of it. The morning flight over the valerian was slow and luxurious, often almost a hover, like the spring flight of a pigeon or tree pipit. In the courting hour of the evening the flight was quick and direct, as a swallow's or homing duck's.

All these painted ladies were in the bloom of a perfect plumage, strangely contrasted with the red admirals that joined them. I would call the red admiral the most perfectly coloured of all our butterflies. The bright and variegated red against the luminous black is beyond comparison; but some of these admirals were scarcely recognisable and were completely outshone. They were dusty and tousled with long hibernation, gaps were

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torn in the wings, and every wing and body was in some degree

Beated and chopp'd with tann'd antiquity.

But they kept the glory of their flight and will be the true parents of a brilliant progeny who will sniff the Buddleia's bloom in September and batten on the early apple windfalls that lie rotting on the orchard floor.

A stranger fly than any of these was as constant a visitor. As I watched through the flowers a perfect pathway of light spread from the setting sun over the smooth sea, a humming-bird hawk moth stopped in rapid flight at the very nearest blossom, and began almost as thorough an inquest into the florets as any of the painted ladies, in spite of the difficulties of his technique. The body, marked like a bird's, and giving the impression of feathers, often looked perfectly still, while the wings worked at a speed that left them almost invisible. The long proboscis was certainly more visible; and it was asked to cover a distance of not less than an inch. Is there any adaptation in nature more strange and unexpected? The movements are curiously like those of a fish or a prawn. Apparent stillness, maintained by infinitely rapid beating of the wings, is interrupted by a streak of motion almost as difficult to follow as the beating of the wings. In spite of the difficulty of the hover and the distance from the flower, the insect hits the door to the honey with as complete a skill as any perching bee or fly. Can any Darwinian point to peculiar advantages in survival due to this strange habit? The moths were common in Devon. A number visited the valerian, and we met them even among the barren rocks on the sea shore.

4.

One of the crowning pleasures of observation is the frequency of the unexpected. If you go forth to seek one particular thing—a plant, an insect, a bird, a mammal—it is odds that you fail in the conscious search, but succeed otherwise. For example: a new note sounded in the garden: ch-ch-ch—ee-ee; the first part a chuckle, almost a warble; the second a disconnected cry, as high and shrill almost as a bat's. Was it true that the grey wagtails had returned after five years' absence? They are rare in our Home Counties, at least in the breeding season, and of all birds in the calendar the most pleasing to watch. We hurried towards the merry notes, coming from a may bush overhanging the stream; but on the way a more dramatic event—though in the wagtail world—diverted us.

Hurrying feet, as always, attracted the spaniel, for no motorist is less resistant to the attraction of speed than a springer; and as a villager said of this one: "The bitches always be more keenerer nor what the dogs are." On the way she stopped suddenly at a revolving summerhouse, under which a young pied wagtail had run, taking cover, like some wheatear on the moor, in the nearest hole. The mother wagtail saw the danger, and with a real, unmistakable shout of anger flew straight at the dog's head, and did not jink aside till she was within a foot or so of her astonished face. Then she flew off very slowly at not more than a foot from the ground, almost compelling the bitch to give chase. The course did not end till the bird, like some hurdler, just topped the garden wall, some sixty yards away. The fury and directness of the original attack were only less admirable in courage than the subsequent attractive flight in its maternal cunning.

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This particular mother is an old friend. She has visited the lawn every morning for many weeks past, and is conspicuous by reason of the total absence of her tail. How it was lost is a mystery; but whatever the cause, the bird has lived happily for the last six weeks without it, in the later state of Tam o' Shanter's mare after the Witches' frolic.

The fient a tail she had to shake.

The cause of the wag-tail name is gone; and the jerky movements are singularly ludicrous since the rudder disappeared. Happily she atones by the speed with which she wags her head, and she seems to have no greater difficulty than the handsome cock bird in catching flies. It may be that in the manœuvre of the slow retreat from the dog, the absence of the plane was even an advantage. She shammed to be more maimed than she was—that was all.

Many birds, of course, will mob their enemies without even the compulsion of danger. I once saw a hedge sparrow trying to mob an adder that held its bent head over her nest of young. One has watched swallows diving again and again to within an inch or two of a cat's back. Great numbers of birds will mob hawks and owls. The other day in the suburbs of Oxford quite a little crowd gathered to watch an angry and vocal thrush charging again and again at a jackdaw seated on a garden branch overhanging the road; and strangers congratulated one another with a smile of satisfaction when at the fifth or sixth charge the defeated daw fled away. Partridges, who are famous parents, will actually fight a crow, indeed, fight to the death, in defence of their young; and they are, of course, supreme, with the possible exception of the green plover, in shamming

A. J. Rooker Roberts

WILD DUCK AND YOUNG

lame and so drawing a dog in pursuit. But none of these excels the wagtail in the fighting spirit. The attribute seems common to the tribe, for I once watched a big Australian "Willy Wagtail" pursue a large dog at close quarters all along a fairly populous street in the middle of Perth.

When the dog was kennelled, for the greater peace of mind of our tailless friend, we proceeded with our search for the grey wagtails, distinguished from all others—pied, yellow, white, blue-headed and the rest—by the extreme length of the tail. We found the pair at once and, what is more, the cock gave us a display of his peculiarly buoyant acrobatics. Rising from a low fence in the stream he danced in the air very much like a glass ball on a fountain, now standing still except for a quiver, a vibration, now shooting up a few inches, now falling back like a swarm of winter gnats, now being tossed aside by the erratic fountain of his inclination, and recovering after half a fall. The pied wagtail, especially when following in the wake of the hay-cutter that stirs up flies and moths, can play the same game; but not with quite the delightful abandon of the grey or the scattering of such colour.

No birds have either a better courage or a greater sense of fun than the wagtail. I have seen one play with a dog as well as fight a dog, dance over his head, tease him by sudden approaches and more sudden skips.

5.

Seed-hay and meadow-hay are as different as chalk from cheese, pace the urban scorn of Dr. Johnson, who thought one grass field the same as another grass field. Of late haysel, a word still in use in some villages, has JUNE

altered much. Agricultural chemists now tell us that leaf and blade make a sweeter and more nutritious morsel than the stem and flower; and the new knowledge urges the world to an earlier and a yet earlier haysel. The sweetest hay that ever I smelt was cut on a golf links when only three or four inches high, and dried artificially. It kept its greenness to the end, and from first to last smelt as sweetly as a bunch of pinks. The horses neighed for it and the cows preferred it to cake. So nowadays the hay-harvest precedes the strawberry in many places, though there are farms in Herefordshire, most lovely and traditional of counties, where the moment for cutting is still decided by the flowering of the rhododendrons.

The new harvest is a different picture from the old, but not perhaps less of a picture. You seldom see the old "bobbery pack" of men, boys, and maids tossing and turning and piling in rows the heavy grass swathes. The circulation of pitchforks, those traditional weapons of the labourer, has fallen lamentably along with the scythe, the traditional weapon of Time, and the sickle, which has been taken by a strange anachronism as one of the symbols of Labour. To mow with a scythe is a satisfying art, practised only in small paddocks or cantankerous corners; and you have to search for your expert. But there remain a few masters of the swaying rhythm, instinctively obeying the book rules to keep their hands low, and take the blade "back with the left and stroke it through with the right," just as Mr. Bobby Jones advises for the happy golf-player. They cut a level swathe and leave a close nap. You hear the pleasant swish repeated like a chaffinch's refrain, and wait expectantly for the crisp whetting of the blade with a tapered hone at every tenth swathe. The track of wheels or railway metals is not straighter than the double line

of the mower's feet, as he moves by inches forward to his labour's end.

Let us praise the past but not deny the glories of the present. Romance brings up the hay-sweep and elevator. Though harvest is early, it does not altogether anticipate the seeding of the spring fescues. In this strangely fertile year, when the grasses are as heavy a crop as the apples, the foxtails are seen to resemble a fox's brush, not only in shape, but—it is the first time I noticed it—in colour too. Doubtless that red, rusty, foxy colour had something to do with the christening of the species. It adds as much as the cocksfoot—another appropriate rural name—to the scheme and colour of a hayfield. meadow may have a ruddy tint without being foul and barren with dock and sorrel. The sham foxtails, as useless as the true are precious, have none of this charm of colour. The abhorred black-bent does not, like the true foxtail, adorn even a bouquet: as Lord de Tabley records of the mare's-tail-another sign of unfruitful soil—it would be "in all nosegays undesired." It is to the good that the foxtail will seed itself in the earliest of the cuttings; and the grass falls at the loveliest moment, when through tall stems and seed heads you may still catch a glimpse, like water under sprouting sedges, of the coloured daisies, trefoil, mellilot, and bedstraw.

The romantic sense of the machine-made harvest owes much to the horse. The two animals drawing a hay-sweep are so far apart as to look utterly disconnected, but they work in satisfying unison. At a word, with military precision, one will stop and the other swing on its centre till he has half encircled the standing heap. Then forward they go together with "majestic instancy," lifting half a haystack on the broad sweep between them, and picking up further trifles, through the fence cleared

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for the occasion, to the foot of the elevator and the mighty stack. Its "sweets compacted lie" in such bulk that they fill the countryside with their savour, and a new building of cathedral proportions rises on the edge of the hill. The scale and speed of haymaking have both increased, even on farms where there is no example of that curious and ingenious new machine which tosses the ridges of hay into the passing cart by automatic action. The elevator lifts the hay to a height unreachable by the greatest hay-fork expert from the top of his cart. You would think the risk of fire from spontaneous combustion was greater than ever, so green is the grass and so mighty the weight. But stack-building is not one of the forgotten arts. Where juicy seed hay is being stacked strata of drier meadow hay are sometimes interspersed. Salt is scattered in layers to take up superfluous water, and add savour, and the builder has more subtle secrets of arrangement than an idle watcher would readily believe.

A haystack is a proper object of admiration; and one differs from another more than many houses. You may know by the scent whether the hay is good, for grasses, like other flowers, differ much in smell. The sweet vernal grass is well named; and the sour grasses carry the aroma of a sour soil. A stack of trifolium and rye smells altogether different from a stack of meadow hay with its mixture of flowers and weeds, of undergrowth and bents. Yet the great weight of a stack, sinking lower and lower into an even solider mass, reduces some of the worst weeds to a certain common sweetness; and you may see dainty animals picking out the dried nettles for preference if the hay be old and perfectly cured. The new stack is less fast of its scent, to use Bacon's phrase, than the old, but it is a question which is the finer attar.

JULY

A Meadow Table—Butterflies from America—A Summer Harvest—The Moth's Hour—Perfect Parents—The Swallow's Brood—A Hillside Cottage—Railway Flowers

I.

THE thoughtful farmer had mowed a grass field already being grazed, with the idea that thus the grazing thereafter would be closer and more uniform. He sets great store by his Redpoll cattle; and indeed they deserve the commendation I once heard showered on their hornless heads by Belgian peasants in the half rebuilt square at Ypres, where our generous farmers held a show of stock presented to the Flemish peasantry. But the cattle are another story. Smaller creatures are in question.

What grass and flower heads were cut on the paddock next the farmhouse were left lying on the surface. Day in, day out, both with naked and advantaged eyes, some of us have been staring, in the W. H. Davies vein, at this green plain; and have wondered not a little at the inhabitants, which have been much multiplied and changed by the mild mowing. Some insects and some birds have surprisingly rejoiced in the slight change, if a few others continue to praise the times that are past.

The bee population has grown at least as largely as the moth's has dwindled. White clover, the bees' favourite flower (as it should be also in the eyes of the grazier), has opened and rejoices almost with the zest of a daisy in the lawn-like conditions. A good deal of red 166 JULY

clover was just shorn by the cutter, as the colour of the field indicates; and this species, so it is generally, but not quite accurately, said, keeps its honey store just beyond the reach of the hive-bee's sweet tooth. Very soon these clovers cut before their time will flower again, and the hive-bee is often able to reach the honey in the second flowering, if not in the first, for the reason that the flowers come shorter and finer. This unexpected fact begins to emerge from the evidence collected at the ingenious and comely bee-farm added of late years to the equipment of Rothamsted. So the cutting of the meadow will continue, we may hope, to attract the bees and give them rich supplies for their masters, though the red clover, even on a second attempt, can never rival the native white.

The single bees do not share the pleasure of the hivebees; and they are rather more numerous. The field adjoins a common, adorned, are we to say? or desecrated, in the interests of golf. That, too, is now a lawn at any rate in regard to the too ample fairways, that beautiful word whose right to the claim some nature lovers would dispute. These fairways are punctured with round holes, at which the thrushes stop, cocking their heads on one side and glinting with a beady eye; but they discover that the holes are not made by the succulent worm; but by nesting-bees, most of them, I think, the work of one species or another of Andrena, especially Andrena rufa. The pregnant mother digs a deep hole for her egg or eggs and the Herculean youngster, when hatched, digs itself out in the spring. The single bees on the common must be of the multitude of a strong hive or two. It is a great common for bees. However close the mowers shave the fine fescues in which it excels, the white bedstraw flowers as lowly as a garden arenaria. Shakespeare himself never found a bank sweeter with wild thyme. The

commonest flower is ling, that true heath, with a blossom that has no complications. Flowers follow one another in sweet succession; where violets astonished us with the closeness of their "purple patches" the harebell will presently ring in July. Longest lived of all is the yellow avens that can blossom equally well whether gone over by the mower or left free in the rough.

The common is almost free of the buttercup, which is the farmer's despair in the adjacent meadow. The stock, of course, avoided it, and nosed awkwardly where older plants prevailed. Hence the cutting. golden market of the bees" was destroyed. The field, just now yellow, is white and grey and green, and even the buttercups are bleached. Happily, in their collapse they have drawn to the field the most conspicuous of its new inhabitants. Pairs of wood-pigeons descend on the new lawn or threshing-floor at all times of day, and even on the driest days gorge in the dusty seeds of this poisonous plant. They potter about undisturbed, sometimes almost at the feet of the hunters, the grey Polish heavy horses, the Redpolls, and Angus, that succeed one another in the meadow. They eat other things, including green leaves, and come to the edge now and again, where the cutter could not reach, and, like the partridges, strip the seed-head of even upright grass; but they prefer the seeds of the felled buttercups, ripened and dried in the sun after the cutting.

Pigeons and, in lesser degree, turtle-doves rejoice more than other birds in a definite succession of harvests; and their intelligence department is good. Where the food of the moment is, there they are gathered together. At one date of the spring they were in the beech trees, gorging themselves on the young green leaf. Some weeks later they wait for seeds of special grasses to ripen. There

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are fifty or sixty eating their fill daily in the corner of one uncut hayfield. Last year, in August, a host of turtle-doves descended on a neighbouring and ill-farmed cornfield. The farmer, out of curiosity and fear for his grain, shot one. Its crop was distended with nothing but the seeds of that pernicious weed, the charlock, or wild mustard. Well, let us confess—since there is no doubt about it—that the pigeon tribe cultivates an insatiable greed and may do much damage; but let us also put down the buttercups and charlock to their credit. And how beautiful they are to watch!

2.

It is a sign of a new prosperity in the land that farmers gather eagerly to the two agricultural stations flourishing within their county; and one of these, at Rothamsted, is as much international as insular. In one room a group of local farmers were shown the arrangements for studying the diseases of English bees and the investigations into the unagricultural subject of the migration of insects; and one of them asked whether such insects could carry diseases, foot-and-mouth for example. It is doubtless possible that our most isolated hamlets may be directly in touch with Europe, Africa, Asia and even America. This station was at the time collecting the evidence on a scarcely credible effort in migration, not by birds but by butterflies, and it is worth much more attention than it has received either from the imaginative or the scientific observers. Though more surprising than others it is one only of a bevy of similar discoveries made during the last year or two by the new and enterprising school of those who were once unkindly called "bug-hunters."

There is a gorgeous American butterfly called Monarch. It has broader and stronger wings than even the Purple Emperor which loves the tops of high trees and if disturbed in the woodland below will rise to the crown of the beeches, whose neighbourhood it loves, more vertically and hardly more slowly than a cock pheasant. Across the wings bold veins divide the yellow surface of the under wing into queer rhomboidal patterns; and if there are lovelier butterflies among the mid spaces of Brazilian forests and even among buddleia bloom of an English garden, there are none more distinctive and salient. It uses the powerful oarage of its wings for longer journeys than, perhaps, any other butterfly. You cannot place even an aluminium ring on the leg of a butterfly as such rings are fixed (most wrongly, in my opinion) on the tiny legs of the gold crest. Nor as yet have particular butterflies, so far as I know, been treated as the modern research worker in apiary is treating his hive-bees, which can fly unhampered by the handicap of a smear of coloured and indelible cellulose on their back! Individual butterflies have not been marked in any way, but careful compilers of surveys have completely proved that the Monarch butterfly regularly migrates in his own country long distances in a particular direction at a definite season. The length of this journey may be as much as fifteen hundred miles without the aid of a favouring wind.

What may not happen if so light and yet powerful a flier yields to a favouring gale or a trade wind? Over thirty Monarchs reached England—this asylum of exiled kings—last year. Some were caught, some seen; and the salience of the butterfly, both in size and markings, preclude the possibility of a mistake on the part of the competent observers who have been mobilised to play

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the sleuth. Odd Monarchs have been seen in Britain before, and it was presumed that they had come by ship as stowaways. It is reasonably certain that last year, at any rate, the butterflies, like A. P. Herbert's typist, went frantic and flew the Atlantic, though the dramatic news was not printed in the Monday morning newspapers. Such an event would have been hardly credible to most of us even three years ago. To-day the students of insect migration have been accumulating evidence of long journeys and voyages that suggest a parallel to the bird. The Monarch, or even the Painted Lady, is a companion of the swallow or nightingale.

We are a nation of field naturalists, to whom Gilbert White is the patron saint. Examples of the extent of the cult are legion. An old country lawyer, well known to me, obtained, and drew, specimens of every single English plant, chiefly through the use of the penny post, as he was wont to say. Correspondents, mostly unknown, would always get him what he wished. During the last two or three years the organisers of the admirable Society of Devon Birdwatchers have been able to make a survey of the nightingale population (now considerable in the county) through the eager co-operation, among others, of the local police. "Constabulary duty to be done" includes listening for the nightingale on night beats, and reporting its whereabouts. In that vein the South-Eastern Society of Entomologists have engaged an immense public to watch for butterflies and moths. The recent harvest from lighthouses and lightships has been rich indeed; and these blessed places, garrisoned by lonely if busy men, are perfectly situated for the observation of migrants, whether birds or insects. I have never seen a Monarch on the wing, though I have been shown a caseful sent from America: but as told above I was

lucky enough to come upon a host of Painted Ladies and a good many Humming Bird hawk moths as they arrived on the coast of North Devon. It was strange to find these rather rare and quite wonderful creatures among the rocks of the seashore. Many people have been a little incredulous about the extent of insect migration; but if within one season thirty Monarchs from America are found on the West Coast of England, it becomes easy to believe that any weak-winged butterfly, or even moth, might cross the Channel if the wind and its mood were favourable.

3.

The wife of an agricultural worker in a little Oxford hamlet spoke to some of us with lyrical regret of the days when the path, now crossing a grass field, led between plains of yellow corn. In her mind as in most of our minds, and in literature, harvest is a thing and a word belonging to wheat, and therefore to autumn; yet there is little in the least autumnal about the cutting of the first fields of oats. Often enough it begins in Southern England just before mid-July; when summer is full of its proper juices, when the sap is active in the tree and the rough border by the hedgerow side and the roadside is still growing in depth and in colour. The song of the robin keeps its spring merriment, and the note of the greenfinch has not wholly sunk to the drawling wheeze that labours to express the dusty desiccations of August. Summer still "slept in the fire of the odorous gorseblossom" if not in "the hot scent of the briar." We may say, perhaps, that the oat harvest is summery, or part of it, and the wheat harvest autumnal. For in the English continuity of the festival shared throughout by

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all the grains—oats, barley, wheat, and rye—we may usually trace stages when one particular crop is master of the ceremonies.

The oat is, of course, the least autumnal. Even when cut, if the cutting is rightly timed, its straw is still juicy with sap. The oat stooks are left to stand longer in the field than other sheafs because the berries, to use the Midland farmer's word, continue to suck sustenance from the stem for as long as a fortnight after it is severed. This is not only because the grain, being less fast of its husk than wheat or barley, is cut before it is ripe. The straw is in its nature—what shall one say?—more haylike and less strawlike than other straws. It is not a mere hollow pillar of concrete or silica, but a semi-succulent grass, as doubtless every humble eater of chaff knows well. Rye has the longest and toughest straw (the only straw useful for the manufacture of mats), wheat the most brittle, barley the most humble, and oats the most edible.

It is a liberal education in the lore of the country and the glory of the country to take an accustomed walk past a succession of harvest-fields throughout July. You mark much more than mere growth or static differences. The colour progresses from day to day as it shifts from moment to moment under the shifting light. Shot silk is not a more elusive chameleon; and, talking of silk, the prime beauty of barley is its silken shimmer. The tissue waves into folds under the slightest breeze. The long nap tosses the light about in a tangle of simultaneous reflections and absorptions that out-tops comparison even with "the numberless laughter of the rippled sea." Yet barley, perhaps, comes not higher than third in the list of the qualities that mean harvest to most of us, at least if we do not live in Norfolk.

As we take our accustomed walk in the deep deep country, where the plough is still active, we may see even among the well-farmed crops how the colour of the crop is qualified by the ingenious devices of the weeds. Some, such as the yellow charlock, top the growing grain to seize the sunlight, and later willingly allow their black-ened pods to be swallowed by the grain and the seeds scattered unseen. The blues and reds of corncockle and poppy seek a different means of distribution. They ripen with the white and yellow ears, are threshed with them, and join their lovely colours in a riot that even the penalised farmer must admire. Their seed-heads will be threshed with the grain. They will feel themselves part and parcel of the very harvest, like the climbing bind-weed, which impressed Keats and was immortalised in the Autumn ode. When at last the crops are cut and stooked, we shall find, biding their time in the stubbles, the humbler weeds, in full but belated enjoyment of their place in the sun. The scarlet pimpernel, flowering among the dwarfed stubble, will play the part of the poppy among the towering ears.

The various illegitimate flowers of the corn field help the daily change of hue, but it is the authentic crop we chiefly notice. Nothing can compare with the wheat emerging, like a daffodil flower, from green to deep gold. Yet the oat, however pallid in hue, has peculiar virtues, defying comparison. As the pine tree's whisper is more sibilant than the elm's, the tinkle of the swinging berries of the oat is as different from the rustle of the wheat as church bells from the tramp of the congregation. They are as sensitive to any tremor of the air as the seeds of "totter grass." And how graceful is each separate head, especially in these later days. The branched white oat is now generally—at least in these harvest districts—

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preferred before the black and Tartarean types, more solid in shape as in colour. Its stem tapers like a Gothic spire, and the grains hang in the pattern of a delicate candelabra; and jangle like the hanging glass. The general tint of the field is paled almost to whiteness, but look at the lower part of the single stems. They might have been dyed by poppies or pimpernels. Each is as pink as the stalks of the sycamore leaf are red; and the colour tapers as subtly from base to crown as the form of the shaft.

It is arguable that our harvests grow more lovely as they dwindle in extent. As white oats excel the black in grace, so the red wheat tends to oust the white. It is redder than of old, though always the wheat makes up in colour what it loses in form. If it has almost the stiffness of metal it has the colour of gold, yea, of fine gold; and daily as we walk past fields of it we become aware that the scene grows richer and richer with the days. You cannot discover such a scene and not wish to grow wheat, however little its wealth of colour is convertible into golden metal.

4.

A strange and ingenious machine is being used this autumn for the first time by an expert of our agricultural station. It is new in itself and has an aim and object that are more or less new to the art of observation. The apparatus is a combination of a butterfly net and a balloon. When towed through the air it is so contrived that it opens and shuts its netted mouth and thus encloses, like a bat's, nightjar's, or swallow's mouth, any moth or other insect that is unfortunate enough to meet its passage. It is a super-butterfly net in the strictest sense of

the term, for it is designed to operate in an upper layer of the air. The new entomologist wishes to find out both the altitude at which insects fly and the exact hours of night or twilight that is their hey-day.

We are all moth-ers (if the word is rightly pronounced) in some sort. When we light the lights of an autumnal evening and leave the window open for the sake of the sweet air we must all wonder how it comes about that an insect devoted to the darkness should nevertheless be drawn inevitably to the brightest light in its neighbourhood; and the men of science have never resolved our dim wonder into the light of common day. Most of us know more than we want to know about the clothes moth whose eggs foul and whose grubs chumble our precious stuffs. Most countrymen know the little moth that wavers in its multitudes round the oaks that its caterpillars defoliate, it may be of every leaf. There are day moths and night moths. There are even town as well as country moths, for Kensington Gardens boasts at least as many "Vapourers" as any country grove, though singularly few other moths or butterflies are proof against the urban parasites.

If many moths are obvious, others are singularly evasive, dodging even the most expert seeker; and one reason is that the race is as particular about its hours as a sundial. As in early summer the singing birds break forth into a jubilate of song just before dawn, never again quite reaching such a pitch of zeal, so certain moths, especially our larger moths, enjoy an aerial dance at particular hours only, in some species preferring, as is probable, the hour after sunset and the hour before sunrise. More than this: different species have their special dancing floors, some just above the ground, some at unknown altitudes. I saw not long since a fine avenue of

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lime trees flood-lighted on the evening of a flower show. High up, near the peak of the trees, a company of great moths careered in the white light, looking yet whiter than it, as if they were the solid crystals deposited by the light itself. It was not possible to detect their species. Any colour, other than all colours, was indecipherable. If their identity is to be traced, some balloon-like thing becomes a necessity, unless we are to copy the habit of insect collectors in tropical forests, who shoot the towering butterflies with dust-shot. Did not an entomologist recently report the killing of a great butterfly and a great snake with the right and left barrels of his shot-gun?

The new apparatus will doubtless help to increase our knowledge where it is weakest; but the part it will play has been filled, not always inadequately, by the bats. Every morning one summer for a period of not less than a month, I found that a certain motor-car, housed in a rather high and roomy shed, was littered with wings and other disjecta membra of moths or butterflies; and one or two sorts prevailed. On inquiry I found that litter of similar, indeed, so far as I could tell, of identical, sort had been puzzling the rector of two churches. Each morning the floor and seats of the churches had been dotted with broken wings. All these were the crumbs of the meals of bats, who are equally fond of barns and churches. Incidentally the most famous haunt of bats, excelling especially in the number of species, is said to be Wells Cathedral. Not once or twice insect hunters have discovered on the ground wings of moths that, in spite of close hunting for years, they thought very rare, if existent, in the neighbourhood. Like the Purple Emperor butterfly, which has a royal fancy for the heights, there are moths that aspire. The "desire of the moth for the star" is a hyperbole of Shelley's; but there are

certain species of moth that desire to find themselves some forty feet nearer the stars than such commoner sorts as are attracted, say, to those humble posts of cork that are sugared by the professional mothers in the open rides which divide the sedge-groves in Wicken Fen.

In the churches and the garage the chief victim is the underwing. The light bands of yellow and orange

announce the identity and prevail over all other markings. The movements of the bats are timed, doubtless, to agree with the crowded hours of their favourite moths. It seems not improbable that midnight (like midday in respect of birds) is not a very active hour, that creatures of the night are really creatures of the twilight. It may be so (as I have sometimes thought) with mice and badgers and others, and such avoiders of daylight, as well as with the moths and bats. Conjecture is perhaps out of place now that our research students, especially at Rothamsted, are set on this particular trail, and will doubtless, after their manner, soon substitute fact for theory.

In the very old and very lovely park of a country house (it was built in the days of Henry VIII) two players of a foolish game were taking a short-cut home over the toolish game were taking a short-cut home over the rough grass, when they were stopped by a sight they will not soon forget. In a tussock of grass almost at their feet sat two partridges side by side, the head of each alongside the head of the other, the wings half spread out; and though they thus covered a wide space, it was hardly large enough for the numerous family that the pair were brooding. The babies poked their heads through the feathers and looked out round the edge of the wings like "beeded bubbles winking at the brim." JULY

The wanderers had almost stepped on the group; but the only alarm was the curiosity of the chicks; neither parent showed any sign of fear whatever or desire to flee. They turned their heads to look, and that was all. Looks were interchanged, scarcely of suspicion from the birds, wholly of wonder from the interruptors, who at last and reluctantly, for all their hurry, dragged themselves away from the pretty sight.

No bird in the list gives evidence of such family affection as binds the partridge family, both the breeding pair and their chicks. They finely illustrate, psychologically at any rate, the old proverb: Dieu bénit les grandes familles. The number of the young has no doubt put some compulsion on the male bird to play the mother. A great many cock birds are gallant, are faithful, help with the nest and the young. Among the daintiest sights in natural history is the meeting of the Montagu harriers in the air where the male passes his prey to the hen after he has called her up to him from the low nest. The male nightjar has the inherited habit peculiar to himself of brooding the nest from exactly the twelfth day, in order that the hen may lay another clutch. Time is short and the family small, and migration a danger to life. By this means only can the continuance of the race be assured. The constant song of the cock nightingale, weaving a canopy of protective music over the brooding hen, is an expression of passionate affection, suppressed a little later by the more silent business of feeding the young. It is a delight that most of us have shared to watch a pair of swallows all through the time when the nests are building, when the hen is sitting, when the young are being fed: they enjoy a singularly merry co-operation. Let no one praise the partridge by the uncomely method of belittling other parents.

The partridge pair are supreme, nevertheless. They have attained to a sort of equality of parentage that, so far as I know, has no close parallel. A habit that other keepers can attest is illustrated by the behaviour of these birds sitting side by side, their wings almost touching, over the dozen and more of youngsters snug in the grass tussock and alongside some of the oldest oaks in England. Not rarely, but almost as a rule, the two brood the young together, brood the eggs indiscriminately. They pair in January, and the family remains inseparable through the winter, which is a strangely rare habit in either birds or mammals. It is worth notice that the long-tailed tits and the grouse, who also retain the family unit when summer is past, enjoy large families. Grouse as well as partridge are so reluctant to leave the eggs or young that they are often, alas! killed where they sit by Milton's "abhorrèd shears," by the blade of the reaper. Two partridges have been watched fighting in company in defence of their young, till the ground was bedded with their feathers and they were too exhausted to move. Again, no other bird is quite so skilful in the strange art of pretending to be maimed in order to withdraw attention from the brood. I have known a bird to give a big dog no more than a yard or two of margin and draw him 150 yards from the nesting place.

Nor is half yet said of the power of their affection. A whole scientific breeding system has been built on their passionate pairing. They seem to be aware of particular affinities and select one another by mutual attraction even when divided by the stern wires of a cage. They foretaste the affection of the covey two and three months before the first egg is laid; and such is the love of family that if they are robbed of their clutch the hen will continue to lay up to three and four score of fertile eggs that

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the family may be assured. They have discovered even a language of their own to the end of keeping the family undivided. Has anyone heard a more plaintive or a more far-reaching cry than the calling of the scattered coveys across autumnal stubbles? They call and call, till every living member is found; and the covey may sleep together in the narrow dormitory that they prefer. For myself, I remember no gladder note than once, when I brought back a young family to its home surroundings. They had been collected from the gutter of a road and were taken away for an hour or two. In spite of the interval, the old birds found the brood within a minute of the moment when they were put over the hedge near the point of capture; and the low cries and chuckles we heard bubbled the very fount of pure delight.

It is a happy accident for many of us that, like several other birds, notably, perhaps, the linnet, they feel an attraction towards human habitations at the breeding time. They become almost a garden bird. It is not uncommon—or such is my experience—to find a nest in an herbaceous border close against the house; and they have a peculiar delight in choosing the boundary between garden and paddock. There they will grow very tame, if dogs and cats and rats allow; for the birds are not by nature furtive, like plover or chat or grasshopper warbler, who must creep to the nest through secret tunnel or by zigzag paths.

6.

One advantage of sleeping out in the cottage balcony by night and sitting out in it by day is that you could make a continuous study of the pair of swallows nesting in the corner. Their ways are very engaging. When once confidence is established they have little timidity and few concealments, compared with other birds who are mostly a little furtive; but there is one mystery which we cannot quite penetrate. The presence has been detected in other years and in other places; but never before noted so precisely.

At the back of the balcony is a broad water-pipe running at a very gentle slope along the wall. A pair of swallows began building a second nest on the top of this pipe early in June. They were singularly slow about it, partly from shyness, for a bed in the balcony and a frequent coming and going of people and a dog were new to their experience. One of them flew about the lawn for several minutes with a large white feather in its mouth, frequently flying to the opening of the balcony but not daring to enter. Indeed, we were forced to vacate the place for a few minutes lest she should be weighted down by the burden. This same feather has never quite consented to an easy relation with the rest of the structure, but remains as a visible excrescence over the muddy rim, and occasionally receives a petulant peck.

The cock bird has been a great source of encouragement, but otherwise not of much direct service in the building. When he flew in and found the hen at work, or later on the nest, he was always unmistakably delighted. Sometimes he would perch on the pipe close by and sing almost in her ear, and sometimes she would reply in curiously gruff and uncomely notes. It is a mistake—and a common mistake—to suppose that hen birds do not sing. The bullfinch, for example, is a notable exception to the alleged law; and few if any are wholly inarticulate; but nearly all sing badly, the hen swallow very badly. The beauty and variety of the cock's song has not, perhaps, received proper recognition. This cock often perched on the tine of a red deer's antler hung a yard or

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two from the nest and sang songs as continuous and only less varied than the lark's. A special charm was that he sang directly for the other's ear. His better songs and softer notes were reserved for the minutes when she was at the nest; and like Wordsworth with the flowers, we said, in his rough and colloquial idiom:

I must believe, do all I can, That there was pleasure there.

He enjoyed, indeed, an ecstasy of delight in the presence of his mate and the raising of the walls of the home. There was no question about that; and though he gave little help, the work marched better for the music.

The season had advanced so far that three eggs only, in lieu of the usual six, were laid, and, almost as in the warm but untidy sparrow's nest, they nearly disappeared into the warm soft feathers of the lining. The mystery began with the laying of the third egg. Three pairs of eyes have found constant, one pair almost continuous, exercise, in watching the birds and listening to them; and each observer pledges himself to the fact that there was never such a brooding of the clutches as you see in other birds. The hen left the eggs on any unusual alarm and was away over considerable periods for no perceptible reason. The discovery that the young were actually hatched was hardly believed till far-reaching fingers actually touched the soft forms that had succeeded to the hard eggs. The sitting had been so often broken and for such long intervals that we were forced to credit the mud and soft feathers with some special power of retaining heat. The nest had the virtue of what is called by makers of modern ovens "the hay-box system."

When the young were hatched, thus unbelievably, the cock at once became as good a parent as the hen: he

changed from Mary to Martha. He sang no more lyric songs, for the reason that he threw himself into the work of feeding the family; but he was still much the more vocal of the two; and when he brought food, always before giving it, sounded a sweet and gentle note or two, the relic of the love-song subdued to solicitous fatherhood. Nearly always when he flew away he gave a loud halloo, as if to call the other caterer. The two worked in a pretty unison, and when they arrived one on the heels of the other, the second waited, though impatiently, a few inches away. They differed in their technique. The mother seemed to give more mouthfuls, bobbing her head deep into the nest a number of times, while she bent her long tail under the nest to maintain a proper balance. And when she had fed, she generally, in the first few days at any rate, brooded the young for a few minutes, slipping into the nest with a neat smoothness.

We watched at all hours, but there was much that we missed. We found the half eggshells lying under the nest, but missed the careful act of expulsion, though we often saw the cleaning process. How dull a thing the egg of the martin and swallow is, when empty, and how beautiful and vivid when the almost visible yolk is in it! Of all eggs it is the most transparent, very lovely in the nest, but so dull and common in a cabinet, that you have some ado to recognise its identity. It partakes of the vividness that belongs to every part of the swallow's being. They are of the air aerial. Even their bones, so the anatomists tell us, are imbued with its lightness.

7.

The place is one of those which, by virtue of their own peculiar quiet, engender a close intimacy among all the JULY

inhabitants. Fear flies, for it is out of place, that is out of touch with this place. People and dogs and birds and little mammals come close to one another without any other barrier than a pretence of initial stillness in the bigger, and a pretence of momentary timidity in the smaller. All the common difficulties of observation fade away merely by grace of the near approach of shy creatures to their curious watchers. The place itself has the St. Francis of Assisi touch. One may say of it what Browning said of the musicians:

God has a few of us whom He whispers in the ear,

and the sense of friendliness belonging to the scene grows as the denizens become subdued to that they work in. Friendliness is as common to them as chlorophyl to the leaves.

The green and sandy patch, that serves the small cottage for lawn, is about the size of a millwheel; and it is surrounded on three sides by gorse and bracken and wild raspberry canes and brambles and nettles, into whose tangle open dim corridors. Many sorts of animal look out from the doors and windows of this green circle, just as other eyes more obviously gaze from the doors and windows of the cottage, made on purpose for the view they give both near and far. So it happens that if you throw out a crumb or stop to watch without such attraction, some bright and merry little creature will pop out at once and without delay, for they are never far away. And when they slip out into the arena (which being sandy and circular deserves the name) they are as good for observation as if in a cage, and much better for every other purpose-indeed, for observation too, for they behave in a natural way, whether the way be one of villainy, so to say, or of virtue.

Perhaps the most engaging of all the creatures who frequent the plot regularly are the mice. Mice, of course, are villains. They eat nightingales' eggs and the tips of young trees and flower stems and bulbs. Some, indeed, hold the mouse or ratten to be as bad as the tribe of rat; but whatever their morals at certain times and places, they keep a merry mien. One woodmouse with ears as big as a bat's usually skirts along a cloister of the bracken before venturing on the open, but the dawdling is no more than a mannerism. He runs out into the open with a gait all his own. You would think he was on wheels. and begins his retreat in the same manner, but changes to a jerboa as he nears the bracken and leaps into hiding. He is the merriest of the mice, though not as pretty as the dormouse, which here, as a boy complained of his caged mouse, "has no habits." How like a squirrel is almost any mouse when it feeds. It will hold a nut squirrel-wise and cut or gnaw off an opening with more than a squirrel's neatness. Life in the cottage has not a dull moment when the mice are feeding—and their ways, like the ways of a playing child, breed laughter. As Keats sang of his squirrels:

So many and so merry, and such glee.

The birds found out the cottage almost as soon as the builders got to work. The walls were certainly not four feet high when a pair of robins built in the fire-place which had advanced rather more quickly than the rest. In anticipatory congruence with the spirit of the place the masons took supreme care to respect these first inhabitants, and the two houses rose simultaneously. It seemed likely that a family would be in being there before the roof was on; but after all, the dust and noise proved too much, and the pair left their nest and eggs for a

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neighbouring site, quieter, and more conventional. Perhaps they will nest again in the cottage next year. Among the most curious sites I have known was the end of a bookshelf, where two tomes were missing, and in this cottage, as new as it is pleasant to the eye, a bookcase is about to be fixed; and perhaps space may be left at the end of one shelf for what Lewis Carroll used to call Litter-ature. Robins certainly abound within close range; for now that silence has fallen on the nightingales, who had been singing in rivalry loud enough to disturb sleep, their songs hold the field with only the jenny wren's in competition; and the robin's, if the less emphatic, is the more constant.

Another red-breasted bird is one of the most faithful visitors to the lawn; and it may be taken as evidence of the value of propinquity that one dweller in the cottage, though an interested watcher of birds, had never before realised that the brown linnet, if a male and if spring has come, boasts a breast that may vie with robin, chaffinch, or bullfinch. The breast, as indeed the front of the sconce, is always red, but the film over it is only rubbed off after the winter. The red breast is like a flower that has cast off its wrapping.

The birds feeding before the cottage windows display their puckishness as well as their charms. One day when both crumbs and birds were numerous, a hen sparrow, busy with a large lump, caught sight of another in a blackbird's beak. She left her own meal, hopped up to her neighbour, and with deft impertinence removed the bread from his mouth. The blackbird fluffed out his feathers in sulky and speechless offence, to which no one paid attention, least of all the sparrow. She hopped away with the morsel, dropped it carelessly, and returned to her proper meal. Even the mouse, shunting this way

and that, as if actuated by some mechanical spring, produced less extinguishable laughter among the gods behind the cottage window.

8.

The little single-track railway that scarcely disturbs the serenity of the village is not only a popular corridor for flowers. It also serves as a means of conveying their seeds to the town. The trains carry all sorts of seeds in the dust of their wake. For example, a pear-shaped bed of the rosebay willow-herb has planted itself between the metals that run from Finsbury Park to King's Cross, in a place where all else is steel or wood or dust and ashes. The flowers are doubtless evidence of the particular skill of this willow-herb in conquering waste spaces with its airy seed and the stalwart daintiness of its purple blossom; but you may see in them an example of the peculiar associations of railways and certain plants. As you steam out of Euston at any time between February and November you are presented with a scroll of the seasons by the guise of the coltsfoot. Just now the leaves are large and clean and round, more like a Shire's hoof than a colt's foot; and they are very green. Presently they will illustrate Shelley's West Wind: "yellow and black and pale" ... a "pestilence-stricken multitude," for wherever it grows, no leaf, except perhaps the sycamore's, is so spotted and mouldered by autumnal decay. In spring the sheer bright yellow flowers, unaccompanied by any leaf, look out at you from the sooty stones of the cutting almost before you leave the station.

No other plant is quite so distinctive of the railway cutting. You will see those golden flowers or those green circles or those plaguy spots all the way from ISS JULY

Euston to Northampton and far beyond, especially towards the base of the cutting. The plant has a fondness for all sorts of bank that is not easily explained. I once saw a clay cliff tumble into a garden at Rye, and within a year the whole yellow green mass of unlovely earth was completely covered with coltsfoot. Its leaves were only less big than the burdock's, which also delights in railway banks, especially in the West.

Now the railway is a potent distributor of seed. Watch any express go by. For what a long while bits of dust and paper go whirling restlessly in its wake, like a pack of dogs in vain pursuit of a bird. The "bobbery pack," as they say in India, travels farthest and fastest along the cuttings; and among them at the due season of the year, are innumerable seeds, distributed in a manner described in detail by both Shelley and Darwin, who between them supremely transmuted science into poetry and poetry into science. Now and again the passage of a particular sort of plant has been traced along a particular railway. One rare species was tracked down the whole of its course from Oxford to Winchester. Its seeds had skedaddled with the rubbish in the rear of the trains, sowing themselves when after each gust they escaped from the track on the banks of the cuttings. Many years ago I walked for some ten miles along a single track railway in Newfoundland, and was seldom out of sight of English grasses. They had sprung from the seed of imported hay deposited the year before at Grand Falls Station and carried forward, so to say, free on rail.

Some sorts of seeds appear to follow and enjoy this form of transportation almost exclusively, perhaps in reality because they happen to be suited by the gritty soil that only the railway supplies. Whether it is an accident or not, I do not know, but the one plant, else alien, that

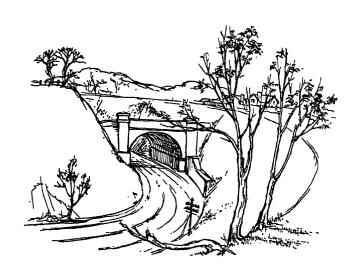
I have found by a railway station is a dwarf toad-flax; and, curiously, the common yellow toad-flax or snapdragon has colonised a very steep and unusually barren bank in a neighbour cutting. On the same stretch of railway I have known the seed-dust and wings of the sallow to pour into the carriage in quantity sufficient to astonish passengers, and though not by itself a cause of growth, its multitude gives evidence how far and fast a true and fertile seed might be distributed. The winged seeds, of course, need no railway. The lovely rosebay willow-herb, which to-day makes a glory of every other waste space in England, as it colonises, under the name of fire-weed, the burnt forests of Canada, is so light and so obedient to the gentlest zephyr that it would travel for miles in the very doldrums. It is the heavier seed, such as the hogweed's—a plant singularly congenial to railside and roadside—that prefers the draught of the express to the strongest gale of heaven.

The treatment of railway banks, as ordained by authority, is often grim; and perhaps unnecessary. The grasses and moon-daisies are mowed and the swathe ruthlessly burnt where it lies. Much of Bottom's "good hay, sweet hay "that hath no fellow is destroyed and unloveliness follows. But this yearly mowing has a compensating influence that the less botanical of our rural authorities might well mark and digest. You will have some ado to find a single thistle or nettle on the railway bank, for neither of these weeds is a hydra, or, at any rate, a persistent hydra. If you go on cutting its head off and lowering the trunk it perishes out of the earth. I am familiar with one bank where this frequent shearing has completely changed the habit of a lovely shrub. The broom that grows there now flowers profusely as of old, but as near the soil as a dandelion; and its creeping

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shoots flourish well below the sweep of the most cunning scythe.

Except in primrose time, when Surrey railway cuttings are as sweet as a Shakespearean bouquet, the banks and cuttings of the east are poor things beside the western gardens. There are Welsh banks to-day heavy enough with the scent of meadow-sweet to penetrate into the train; and both cutting and embankment are as spinneys or hedgerows or gardens, very green with the male fern and pink with rose and blackberry. A tree that seems to have some affinity with the railway—as seen both in Radnor and Herts—is the white poplar; and not once or twice I have heard passengers ask what the lovely flowers were. The lovely flowers are, of course, the palimpsest of the leaves, so white that before a puff of wind the tree shifts and rocks the light like a flock of snow buntings. Presently this covering, white as privet blossom, will fall off almost like the petals of a true blossom.



Low Tide Treasures—The Singing Valley—A River Nightingale— The Way of the Gull—A Cloud of Thunder—Augustan Sounds

I.

N spite of harvest and the joy in harvest August is one of the least eventful of months in any inland parish. Botanically, September is a sort of second spring and the earth grows yeasty again; and we may regard August from this point of view as its preceding winter. So the folk who go to the seaside in August are wise. Biologically it is one of the busiest months at and about the sea's edge. The seaweeds are lined with eggs, and the weeds themselves growing; and many fish now become fond of the shallows. There is always a deal to see. The first day that some of us went down to the beach—in a snug North Devon cove—we saw a peculiarly perfect example of a common wonder of the salt water.

The surface of a little pool by the sea's edge had suddenly become coated with all sorts of heavy things that ought to be on the floor and not on the roof: sand and even bits of shell and stone. I suppose everyone almost who has visited the seaside in August has noticed and mildly wondered at this curious little phenomenon. It is one of many score—but comes high in the list—of the little things that we remember about the summer holiday; and half the pleasure of our seasonal migrations, to moor or sea or where not, springs from seeing and hearing the expected—the things we especially remember seeing and

hearing and smelling, feeling and, perhaps, tasting; but perhaps no place is quite so rich in little memories that may be repeated for certain-sure as the seaside, and it is generally the very small thing that is the most memorable, such as this sudden denial of its gravity by the sand and the shell.

The cause, I suppose, is much the same as produces the swing of the seaweeds that had been pointing seawards and now point landwards. The tide has turned, and the presence of a new force is felt at the base of the pool. Bathers and promenade loungers enjoy a high tide and the deep water that is given when the sea has to climb the rocks or shingle on a shelving shore; but the very lowest point of a spring-tide has charms altogether unrivalled if you are on the look-out for what early Victorian books called "common objects." It is a pleasure in itself to walk far out where the sea flowed even at low tide, in those paltry days when half a moon indicated half a tide. Those learned people, the marine biologists, get a large proportion of their knowledge about fish and crabs, about starfish and sea urchins (which, surprisingly, are a sort of star fish), about shells and seaweeds, from the dredge dragged from a seafaring boat; and we may trespass a little on their special preserve when the moon has dragged the sea out to this inordinate distance and bared the floor. Is anything so dead as the dry sand on a beach withdrawn from the tide? Is anything more patently alive than the edge of the sand at the sea's edge as the low spring-tide turns? It bubbles with life. Spiral spits of sand rise up as if the sand itself were yeasty. You may actually catch sight, without the labour of digging, of that beautiful silvery fish which we call a sand-eel. The live animals whose bits of shells lie embedded higher up on the edge-Venuses conspicuous



in the sand as the turrets and staircase shells on the rocky shore take up their shells and walk. There is a bivalves' parade. The active green, almost terrestrial, little shore crab is now known to have handsomer cousins of stranger tints and robuster build. The sea itself clear and shallow, with ripples no bigger than the pucker on a smiling face, is alive with prawns that look very real and solid beside the ghostlike humpbacks of the upshore pools. We have almost transgressed what is called the "littoral zone" into the laminarian—is it?—and as evidence of a new country is a seaweed as strong as a trunk with a base like the aerial roots of a tropical tree. The comparison is inevitable, however carefully we have been taught that seaweeds have no roots only suckers, as they have no seeds, only spores.

We are all like Father O'Flynn that could be con-chologists if we'd the call. Though few acknowledge the call, the shell has an irresistible attraction for all sorts and conditions of sea visitors. Who can resist picking up the stray, ribbed, and channelled scallops on the beach at Mallaig, or the cowries in South Wales, or the iridescent venuses on Cornish sands, or another of pearl "tops" and turret shells anywhere and everywhere? At Woolacombe, in North Devon, some of the shelving beaches are wholly covered to a great depth with the debris of shells in lieu of shingle, and among them only two shells keep their form and shape undamaged, the little cowries (for which every man, woman, and child searches) and the gross limpets. The sand thereabouts holds only bivalves which, in spite of their delicacy and thinness, remain often quite unchipped. In some seaside places—La Panne, in Belgium, is one—the so-called sand consists wholly of shells (as, indeed, does much of the Portland stone), and it is compacted into a sort of

concrete which the hooves of galloping horses or the keel of a char-à-voiles scarcely dint. The tides and currents play strangely selective pranks. They fill one bay with shells, another with pebbles. They sort the shingle, as it had passed through a grading machine, on the Chesil Bank. They will pile delicious sand over a series of years against the south side of the Solent; and then capriciously snatch it away again and leave behind unlovely mud and "slipper" clay. They mix the rubble of rocks and of shells in proportions peculiar to each particular bay, so that you may know (with the farmers in the Duchy of Cornwall) just what proportion of silica and lime you will get from the sand carted to the fields. And the tides are eccentric in themselves for all their absurd obedience to the moon and adhesion to the twenty-three-hour day. They are double, here and there, and single, and may have interpolated checks and advances only known to local folk and given local names. Their eccentricity defeats even the birds, as you may see pitiably whether on the Blakeney Spit or the shingle beds in Jura. Should the moon and wind be in alliance, the common boundaries are exceeded, and when the waters abate, the line of the tide-mark is a medley of the eggs of tern and gull and plover as barren as the torn weeds or cases of the skate's or whelk's eggs or the dead things that the gulls scavenge.

2.

Proverb-makers may assert the pleasure of sunshine after rain—post pluvias serena; but it is not greater than the pleasure of rain after sunshine. Rain in Palestine touches a deeper poetry than sunshine in England; and perhaps because we are a country of "mists and mellow fruitfulness" in the common, we tire sooner than other

folk of dry suns, and are apt to talk of a drought almost before the latest rains have soaked into the ground. Even holiday-makers shout with laughter when the rain drives them to shelter. As for the engrooved countryman he adores rain, and as strongly as the psalmist desires the thirsty land to become springs of water. When the great drops gobble in the puddles he thinks, like Meredith, of the sound of pigs noisily sucking up their liquid mash in a well-filled trough. To some, perhaps, may come a hint of that wonderful metaphor of the same poet, that comes to a triumphant climax in *Earth and a Wedded Woman*, who lay

tranced to hear all heaven descend: And gurgling voices came of Earth, and rare, Past flowerful, breathings, deeper than life's end.

One of the loveliest things in nature is a spring of water, a river's source. One is very familiar to me. It is the chief feeder of the Pang, a tributary of the Thames. The water wells up so powerfully that it has made a round pond; and it is so constant, even in drought, that it keeps clean of weed or dirt its chief bubbling point. A bright sand is substituted for mud; and an open well formed in the weedy waters. The rising force is expressed on the surface by a smooth mound of water puckered at the edge. The trout which flourish in the stream delight to pass over the titillating spout on slow fin, or to poise there for some luxurious moments.

Even the artificial spring is pleasant to watch. How refreshing on the dry plains of Queensland's back blocks where an artesian area has been lately found and probed, to watch the great bubble break at the surface and course along green runnels and fill with fertility an else arid plain. Even though a slight smell of sulphur may suggest that it comes from unearthly depths it remains a source of

unceasing pleasure as well as wealth. England is full of springs, many of them quite neglected. You find yourself treading a marsh even on the hill-top and a few spadefuls of earth could open a bubbling fount. But in the great drought many that were much used vanished, especially in the valleys where stray the streams that give London most of its water. These valleys are thick with springs as our hedgerows with trees. You may watch them bubbling at the head of the watercress beds before they find their well-tutored way to the main stream or the tributaries of the Lea. When the rain fell, we saw in imagination the cresses revive, the hard channel fill and the duck return. The revival must be long. Months of slow evaporation and heavy rainfalls must precede the filling of the hidden stores; but the time will come. The slaty clouds and the patter of the drops are as sure a promise as the rainbow.

Some of the surface revival is as quick as the subterranean is slow. The fine fescues and grasses of the commons grew not less brown and grey, perhaps browner and greyer than the coarser foxtails and cocksfoots of the meadows; but they recover their greenness as at the touch of a wand. You may cut a turf of these grasses ten foot long and deal with it as if it were a measure of felt. It will neither crumble nor break, for almost all of it is a woven cloth of roots. The moment this carpet feels the rain, it sends supplies to the blades, and patches of intense greenness appear on the morrow, at any rate, if not on the very day of the downpour. Almost all animals rejoice in the sudden change. That half-nocturnal creature, the rabbit, leaves its burrow the moment the first shower ceases; and all along the walls of the West or the hedgerows of the Midlands you may watch the little brown forms making little sallies or performing

wholly ludicrous skips of pleasure in the prospect of more luscious feeding. The favourite heaths will respond like the grass on the commons.

Thunder-rain is the best to watch, and so is its approach. No spectacle in all nature is more magnificent than the formation of a single thunder-cloud. It grows like a tree, but in the space of a few minutes. The upward current of air from the hot earth to the cool heavens may be almost as rapid as a waterspout twisted out of the sea by a revolving storm of wind. Their speed has been measured as other winds have been measured, and may reach fifty or more miles an hour. Raindrops that meet this ascending rush are shattered into minute particles, and out of the conflict the thunderstorm is bred. We may watch the quick piling up of great cloud on great cloud, as if the giants and the gods were at war:

Ter sunt conati imponere Pelio Ossam.

And perhaps this fable of the gods and giants was a personification of the thunderstorm. The piled cloud will sometimes topple at its peak, where the ascending wind has begun to fail. What "cloud-capped towers and gorgeous palaces" we see built and shattered and mingled into splendid and fantastic architecture, and penetrated by gold and silver lights. Of such splendour was the felted monotony of the rain-clouds bred.

These belated rains fell on an earth singularly dry and hot; and they acted like a trigger on the threads of those mysterious plants the mushrooms. Did ever the favourite agaric of our English fields come up more quickly, more surprisingly? It grew so hurriedly that it had scarcely time to break the white crumpled curtain that conceals its spores. It grew, blackened, and was penetrated by its insect enemies before people noticed its

coming. Yet its growth was hardly more sudden than the sprouting of seeds shaken from early flowers. When the wheat was cut and bound and piled in stooks the ground looked too barren and dusty to bear any plant more tender than the camomile or bindweed. Within a trice it grew green with patches of unknown seedlings. A tired summer was converted into an energetic spring. A few days later the seed leaves gave way to more distinctive marks, and the young poppies declared themselves. How quickly they can germinate and how very long lie dormant! The double border seems to belong especially to grain-field weeds. It is certainly common to the red poppy and yellow charlock and white yarrow and pink fumitory. This year, to the satisfaction of the farmer, the ploughs will bury in rare quantity these premature children of the spring.

3.

One very hot day in August some of us went down to the village bathing place; and in spite of its popularity of late—for bathing is a more or less new amusement among the village youth—it remains one of the richest bits of riverside scenery. It had escaped any naturalist's notice, though lying close to a most familiar and precious reach; and perhaps the most indigenous folk, so discover to their astonished shame that they have missed gems and treasures lying within the very pale of their daily migrations. This patch of marsh and river, divided by a firm bank and dry walk, reveals all the reasons why we seek water—river if it may not be sea—when the summer bares the tilth and browns the meadows.

By the river all the qualities of summer, if not of spring itself, are still at their highest pitch. Birds sing; or at

any rate one bird sings; and he is a sort of nightingale. He certainly tries to be a nightingale. There is the same alternation, though much less abrupt, between "slur and shake" and the high call. If you think of the nightingale while you listen, you find all manner of likenesses, as you may if you think of the thrush while listening to the lark. In one regard this sedge warbler excels the nightingale, though he cannot reach like heights. He is the most continuous of all singers, not excepting even the swallow, and perhaps most listeners are a little disappointed with the nightingale for its capricious silences and pauses, even though they allow that pause is the secret of the higher rhythm. The closer you come to the warbler—and you may come, for all he cares, as close as you please—the more sweetly varied do his "thick chattered cheeps" become. Indeed, as I listened the description which I have long regarded as the poet's best, seemed to me almost slanderous, so clear were the higher notes, so merry the chuckle. And it is as great an achievement for a bird to sing August in as to carol " out of winter's throat."

The sedge warbler sang—that noon on a baking August day—not out of the sedge (whose withering was Keats's symbol of deathly silence) but from a grove of reeds ten or twelve feet in height, such as the reed warbler loves to choose for his pendulous nest. They are one glory of the place; the reeds that many people, to the despair of formal botanists, usually call bulrushes. The wind was just fresh enough to flutter the long leaves, so to call them; and the bird sang a whispered accompaniment, to mechanical music perfectly fitted to his piece. Sedge there is too, for as I stood on the edge of a blind ditch alongside the river an unseen moorhen croaked almost beneath my feet so suddenly and loudly that the

listener was startled and the warbler for a moment silenced. It is a place beloved of birds. On a willow that grows almost horizontally across the narrow current was the relic nest of a dabchick, a bird at least as furtive as the moorhen—which originally claimed the adjective—and much more charming. Wild duck and snipe both nest near by, the duck sometimes in the sedge or on the ground, sometimes quite high up in the pollard willows.

No heat or drought is ever fierce enough to hamper the freedom of growth in this place. A narrow path has been trodden by bathers; and it might be a forest path. On either side the great hairy willow herb, which, at its smallest, has the appearance rather of perennial bush than a herbaceous plant, grows in a dense mass, with stems like trunks, to a height of seven or eight feet. Hereabouts, too, it flowers only less profusely than the annual rosebay willow herb (the American fire-weed) which loves the dry as exclusively as this species loves the wet. The sun and wet bring out the quaint domestic scent. The place smells like a kitchen when some fruit is being stewed—is this why the folk call it "Codlins and Cream," or is that a reference to the very white centre (in the form of a cross) and the pink surroundings? Anyway, it is a dish fit for a king, sweet and splendid. Only the immense reeds tower over the willow herb as it towers over the purple loosestrife. Here these two grow almost cheek by jowl, both in masses, and it is, in my experience, rare to find loosestrife closely massed or in association with the Codlins and Cream. The butterflies prefer the loosestrife, especially at mating hours, and this patch is the surest find for some of the rarer sorts, including a clouded yellow. The loosestrife has other neighbours, and is set in a circle of meadow-sweet.

If you wish to reach the river from parts of this narrow, trodden path you must fight your way through the willow herb, and risk a wetting in the random ditch. One of these is half-lined with the great white running roots that adapt themselves as perfectly to the conditions of water and mud as the white roots of the bind-weed to the roots of our gooseberry bushes. If the loosestrife is preferred of the butterflies, the sedge by the river is the favourite of the flies we libellously label "dragon." Some apology for the word is offered by the Latinate who have christened two species "virgo" and "puella." On this August day the Calopterix virgo (lovely winged virgin), which we know as demoiselle, is everywhere. Is there a more beautiful flash of colour in nature? The iridescent blues and greens of the body, the brown and purple wings, are too gorgeous to allow themselves the diaphanous quality of other dragonflies. Sound and sight consented to as sweet a relation as any senses could need. The delightful Anne Pratt, writing of The Willow Herb, quotes her Chaucer:

And the river which that I sate upon It made sich a noise as it ron, Accordant with the birdis armony Methought it was the best melody That mighten bin y hearde of any man.

And so I thought with emphasis as I sat on the horizontal willow listening to sedge warbler and the Lea, and watching the demoiselles.

4

On the pier at Llandudno a great gull that had quite abandoned any fear of man pegged out a claim by one of the kiosks; and has occupied it for some years. It stands

on the rail, for the most part, almost like a stuffed thing. How very smooth and white are the breast feathers, how soft the grey of its back, and how neatly patterned the black edges. The pink-lilac legs look like sticks artificially stuck into the dressed body. But the shrewd eye, where dwells the master sense of this bird, as of all other birds, is acutely watchful, though its watchfulness is almost wholly concerned with food. It watches your hand, expecting a gift; and the amount it must receive in a day is fantastic, for it is everyone's friend. Anything edible it will take from your hand without suspicion of a tremor. A particularly large herring gull, with a like appreciation of mankind, frequents the golf links at Mullion, in Cornwall; but this bird's eye has a crueller glint, and the beak suggests an instrument of war, for it will attack, and may even kill, any smaller bird that comes between the wind and its avidity. Both birds are as tame, for example, as the gull, so well known to the British Army in the war, which lived in the courtyard of the Hôtel du Rhin, at Amiens.

How much of the pleasure of the holiday-maker at the seaside comes from watching the gulls. You can no more stale the delight and wonder of their easy flight than the restless movement of the sea itself. They make the air as palpable almost as the sea. Without a stir of the wing they shift their place and then plane like a boat on the waves, rising on the peak and dipping to the trough. Look at the companions of this static gull on the pier as they swing in from the sea towards the face of Great Orme's Head. Without an aiding movement, except an imperceptible tilt of the body, they shoot upwards as they near the cliff. The wave of air has risen steeply as it hit the cliff face, and is no longer a west wind or a north wind, but a Jacob's ladder running from earth towards heaven.

The birds are in touch with every eddy and current, and make the winds their ministers.

All round the world we meet them or they meet us, displaying the same winged freedom and much the same surprising tameness. You may go as close as you dare to the colony of kittiwakes nesting on the North end of Lundy, and they seem as solid and at least as tame as domestic hens. Then one glides serenely from the slope of the cliff towards the sea, and it appears as a phantom, a nurseling of sea and sky, less solid than Shelley's cloud; they "are all spirits" like the actors in *The Tempest*.

The gulls of the Pacific attract your wonder and continual gaze even more securely than those of the Atlantic or Mediterranean. The lesser albatross, which is said to roost in the upper air on the sole support of its extended plumage, will accompany your ship mile after long mile, and never perceptibly beat its narrow wings. Yet it skims the sea as closely as Mother Carey's chickens. You must infer that it uses all the while the current of air behind the ship, the upper draught off the swell and the sides of the vessel, as well as the wind directly. Our students of the air, working on behalf of our airmen, are wont (as I once saw at Gibraltar) to test the air movements by the agency of little balloons or floating objects. They could perhaps extract as perfect evidence from such a careful watch of the gulls as the Wright brothers devoted to the buzzards spiraling on still wings over American towns. It is difficult to believe (as Mr. Orville Wright once assured me) that the birds manufacture their own rising currents for their own ensuing purpose; but assuredly their movements express the very shape and energy of existing currents formed by this wind and that.

This unlikely contrast between wild spirit and tame greed is common to a great many species of gull. In

Britain two sorts almost monopolise the attention of most of us. There are kittiwakes in special colonies, and common gulls widely distributed, if few, and when we sail into the Bay of Biscay or approach remoter cliffs the lesser black-backed and more rarely the greater, may dominate the scene; but the herring gull, that monster which in company gives tongue like a pack of foxhounds, and the neat tern-like black-headed gull which invades London, are those that prevail. They are the gulls that follow the ploughs in Eastern and Southern England—follow them so closely that they are sprayed by the earth (now and again buried by the earth) more thoroughly than by any wave of the sea. The little London gulls are indeed almost inland birds. They nest in tufts of grass on inland moors, and devour perhaps more bread and worms than fish of the sea.

5.

When thunder threatens, the whole creation seems to travail in sympathy: trees, insects, birds, and mammals. The green of the leaves glows as inordinately deep as the piled clouds: you might almost take the sycamore for a cumulus; and could easily imagine that its still mass was beginning to move upon you in one piece, as big with threats as the storm above it. The stillness, almost universal, belongs to a common certainty that some portent, if not some catastrophe, is about to fall on the world. If a leaf shakes or a bird sings it is an event. A pillar of garden roses, grown suddenly brighter than ever, looks strangely out of place, like finery at a funeral. Nature waits with awe rather than fear for the weight of the air to be lifted, for the still leaves to shiver in a sudden breeze, for the tap of the big drops on the dome of trees,

for the sudden freshness as of a spell broken. The little noises, the little movements in place of the unearthly rumblings and deathlike suspensions of movement, are desired to restore the oppressed senses and remove the incubus of a supernal threat. When it comes the storm is pure pleasure. The mind and body are relieved together. The splintered streaks of electric fire, the crash of near thunder, the huge raindrops leaping like a shoal of rising fish on lawn and roof, the sharp variation of wind and noise and light are as themes for prattling wonder.

This sense of oppression on the edge of a thunderstorm is not a fancied invention of the mind of a neurotic or even a superstitious race. Some such feeling is expressed quite definitely in other lesser creatures. If there is a robustious creature, it is the "irreverent buccaneering" bumble bee. Why, then, did a previously lively bee, a Bombus agrorum, which is one of the most active, crawl in at my window as the oppression grew, and hang like a dead thing on the curtain till the first drops fell? How big they were! It was a prodigy that no more followed. Those immense and splendid clouds that earlier had piled themselves up gigantically, may prove a defence against rain as well as a cause of it. The upward currents of warm air meet descending drops, and of these sometimes only the biggest and heaviest can penetrate the defensive cloud.

No one has ever explained some of the earth-born accompaniments of these hot and heavy storms of summer. The bumble bee was not the chief visitor to the open window. The panes grew populous with the little flies that the country people in all parts call "thunderflies." They are so many, they appear so suddenly and so suddenly disappear, that you might believe them to be the product of a more cosmic agency than mere

generation. The myriads appear one hot and heavy morning, and, sure enough, before evening the thunder has broken. They might be bred by the conditions they accompany and have causal connection with the turbulence they prognosticate. They hatch, in Sir Thomas Browne's phrase, in "the vulgar way," and coincide by accident, since both flourish round about a late summer date. We see a similar, though much smaller, outcrop of what even men of science name "window flies," and of these many, as we are well aware, are bred within the house and fly to the light. We know a great deal less of the life history of the thunderflies. Like the seed of a canna, they may need a quite peculiar mingling of damp and heat to complete the change into the winged state; and this may only be supplied by approaching thunder. The country folk, perhaps, have christened them well.

The particular frustrated storm of which I write had peculiar features and influences. Looking up at the clouds long before its approach, you saw what unlifted eyes had not noticed, an astonishing multitude of martins and swallows, with a few swifts. They were all at such unusual heights that your eye, like the eye of a camera, saw more and more the longer it was exposed. Some of the birds looked almost as high as a low scud of misty cloud, racing overhead in a film so tenuous that it scarcely obscured the white and restful strata of cloud miles above them. The low cloud was some 800 yards up, the high cloud quite two or three miles. The birds were not careering at that height for nothing, not even for the pleasure of lofty speed. Flies and a few moths, it is said even spiders, so strange is their power of rising on wingless planes, had found like altitudes. Now the rising of the swallows cheers the country people more certainly than the rising of the mercury in its tube. "It

will be fine," they said; and the Meteorological Office concurred. The vertical rush of hot air that carried the flies upwards is like a witch on a broom, a cause of strange and sudden changes; and no one can forecast the issue of its conflict with the cold forces into which it drives its wedge. The mercury is as poor a prophet as the swallow, the countryman, or the man of science. Within a few hours the swallows, which seemed to have lost nine-tenths of their number, were skimming the tops of the grasses; the windows were dark with flies; the white butterflies, as numerous as white horses in the Bay when the west wind is stiff, were all becalmed: every one clung with dull and folded wings to a protecting blade or leaf. Clouds had thickened and fallen. They were so near that their influence was on all life. How should one's mood not be conscious of so close and dark a roofing?

> The sun's away, and the bird estranged; The wind has dropped, and the sky's deranged: Summer has stopped.

Yet, for the sake of the pessimists be it said, an hour later swifts coursed again through lofty planes of air just now invisible under the stress of the lowering nimbus.

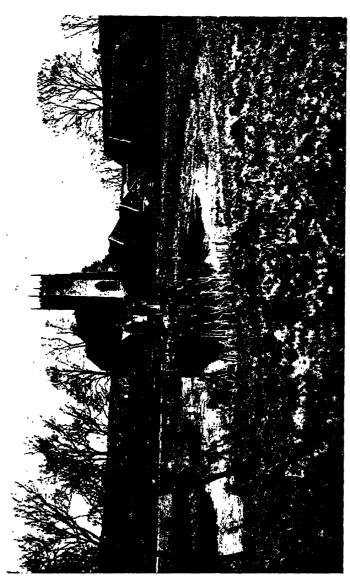
6.

As the sun climbs high it seems to unloose little bouts of extra heat on this place and that, as if corridors of a less resistant air let the rays through. You would hardly be surprised if they served as a match to the dried and withered underpart of the gorse, and the heath, sun-fired, went up in flames. Their influence is not quite so

extreme as that, but it is as surely, if less dramatically, acknowledged. Wherever gorse bushes are found the delicate ear hears a sound, continuous for many minutes, over the surface; and it quite definitely suggests the crackle of flame. The likeness at once leapt to the mind, even of those so used to the experience as hardly to heed it. It is of August Augustan, in every district where furze flourishes, for the seed-pods are as sensitive to the sun as the dead thorns and leaves to the chance burning-glass or spark from a camp fire. At particular hours the hard though woolly shells crack and twist and catapult the little brown seeds into friendly ground beyond the dead area of the parent bush; and at a crowded hour the note is just that of a tiny foot crackling over dead twigs.

note is just that of a tiny foot crackling over dead twigs.

I heard it wonderfully in a Norfolk garden in which flowers are surrendered for the sake of gorse and pines and other wild growths native to the East Anglian seaboard. The blackberries find in the gorse a congenial support, and now cover much of it with pink flowers, often bombarded by the shrapnel of the gorse seeds. The two plants seem to enjoy the mutual association, and give the gardener that succession of flower in the same place that is the ideal of his art. Seed distribution is the mark of autumn, though here and now it is also a tune accompanying the opening of blossom. Yet to-day it is not so much the seasonal as the diurnal event that prompts our wonder. The seedcases shoot at particular hours, just as mayfly or caddisfly or black gnat will emerge from the waters in multitude for a quarter, a half-hour, when the sun has a more than commonly seductive ray, and then wholly cease. They seem to be able to time their birth—their second and more glorious birth—to the most golden moment of the day, as well as the proper date of the season.



The Times

All this gorse and pine and bramble and briar do not signify that Eden has suffered from the fall. If flowers were few—the most pleasing a bunch of foxgloves under the Scotch firs—the birds were many, and, indeed, are still many. The wren sings all day as if stirred to melody by the crackle of the seeds as nightingales in the war by gunfire or in peace-time by thunder and "summer lightning." Three dozen nests there were—of linnet, warbler, wagtail, wren, robin, finch, and the rest; and one willow wren, whose sweet plaintive song suggests a shy remoteness, was brave enough to choose for her site a small separate and very diaphanous bush against a wall of the house. Behind it was continual music or other noise, and in front of it a continual coming and going of many inquisitive folk.

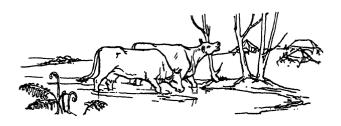
Though the jenny wren sings, and, indeed, shouts, the willow wren is more silent; the larks, when they speak, are almost as gruff as the corn-bunting, which alone among all the birds now begins to nest and celebrates its spring; but as though to be in tune with the month its song is of no better quality than the domestic chatter of the other earlier birds. We think of August as a time when the hum of insects fills the gap left by the muting of the birds, we think of it as Meredith sang of it in his supreme lyric, a time wholly given up to gnat and midge and fly against which

Cows flap a slow tail, knee-deep in the river,

and there are as many sorts of hum as there are of song, each with its distinctive note, to be distinguished by the careful ear more easily than the whisper of different trees by Hardy's woodlander. An hour after sunset if you walk from the Garden of Whins toward the sea your ear—and for that matter your hair—will be bombarded by

cockchafers. They are out and about in myriads. The hum and drone are like the distant murmer of the sea, rising almost to a threat as it rushes nearer to your ear. As the heath-blue butterfly over the bell-heather on the links expresses the bright colours of the day, the queer upper browns and lower blacks of this crepuscular beetle are of the night tenebrous, subdued to the colourless eve which the insect chooses for its heyday. Its hour is later, I think, than the favourite time of its larger cousin, whose active months are May and June, and whose favourite haunt the lime trees. With each of them the change to the perfect form is a simultaneous miracle: multitudes are born at some favouring moment when the sun has warmed and polished the world to their peculiar needs.

There are less welcome notes. The black flies issue in a noisy swarm from woods of pine and bracken most suitable to their cradles. A campful of boys on the cliff hear the high squeak of the woodwasp and fear that hornets have descended on them or a worse enemy, so terrible to look at is the harmless spear of this strange and terrifying insect. Even the creepy crawly earwigs and ants enjoy their short period of tuneful flight. These and the shrill gnats are not abroad for the pleasure of mankind; but when all is said we may find in the sounds of August, notes so various and so eloquent of summer that they almost compensate for the silence of the birds.



SEPTEMBER

A Martin's Colony—A Drought-Time Diviner—A Seaside Links—The Daddy—Unharvested Honey—Queen Elizabeth's Perquisite—The Vanished Sheaf

Ι.

THE LONGSIDE the Mimram, a merry little inland tributary at two removes from the Thames, is a farmhouse that should be famous among students of birds. One side of the building is lower than the dwelling-house proper and the bricks under the eaves are bracketed: every other one projects, leaving an ideal recess, as the architect may have realised, for smaller houses than he himself was building. Every single space is this year occupied by martins; and even so, their company is not satisfied by the accommodation: it is insufficient; there is not room for all the applicants of this most gregarious breed, so a number have built underneath the other nests. Such groups of nests give the impression of flats or semi-detached houses in a vertical plane. This bit of wall, this ideal site, is fourteen yards in length and the nests on it, a few unoccupied owing to accidents, number exactly sixty-seven. colony is much the biggest that I have ever seen and in some of its aspects the most curious. You could watch it for days and continue to make quaint discoveries.

Though the birds are in some regards a nuisance the farmer and his family delight in the invasion. The size of the colony is proclaimed by the continuous chatter and by the shimmer of wings. Most of the nests hold

young birds, and the martin, whether young or old, is much more talkative, though less sweet in voice, than the swallow. The young have the habit, not very common, I think, in the callow nestling, of chattering freely in the nursery. Most nestlings alternate between a period of surfeited coma and vociferous excitement at the expectation of immediate food. They lie like dead things with closed eyes and mouths and motionless bodies till the chirp or movement of the parent is heard. Not so that most vital youngster, the growing martin. It is always expecting food and asking for it; and is more nearly its parents' equal. The old birds sleep in the nest and the continuous noise rises into sharper notes when the whole family is struggling to fit itself to the narrow room.

The nest is much more ingenious and elaborate than the swallow's, though both are made inside and out of similar materials. Both cultivate a device common to them and the old English builder of lath and plaster houses; they mix their mortar with cow hair or other material to give it a binding fibre. The swallow builds a half or three-quarter saucer, the martin a sort of teapot. It reminds me always of a queen's cell in a beehive, though it is neater, often very nearly a hollow sphere with a narrow entrance near the top, like a long-tailed tit's nest slightly tilted. They demand no support for the under side of the nest; but always demand a roof over it. The nest itself is supported—miraculously when we consider the weight and agitation of the roosting company—wholly by the adhesive quality of the mud, though in this particular colony a little extra support is provided for the majority of the nests by the flanking bricks. Here and there is a vertical line of nests, in one place the lowest is not on the wall at all, but on the glass

of the window; and the necessary roof-cover is supplied by the other nests rather than the house eaves.

The busy scene is delightful to watch. The parents are very assiduous; and as each clings, as easily as a fly to a pane, to the side of the nest, you see, as you can hardly see when the bird is in flight, the neat white frill on the legs, suggestive of the clothing of the early Victorian child, whose drawers were made to appear below the skirt. The seductive curve of the bird's body and neck, as he dabs the flies, several brought in one beakful, into the clamorous mouth, is one of the attitudes that abides in the mind's eye, like the hover of a kestrel or the stance of a heron. How many flies a day must be caught to satisfy the hunger of those 200 or more nestlings and their parents?

This large colony under the farmhouse eaves has been growing for some years. Martins are clever, but slow builders. It is said that they must wait for each layer of mud to dry before the next is affixed; and the right mud is hard to come by in a dry season. They prefer last year's nests; and build, like the ravens, for more than a year. A certain number of the old nests fall during winter storms and some are ruined by sparrows. You see half nests and quarter nests; and not all of these are remodelled in the next spring; but surviving nests are an invitation, an attraction; and the more that remain after the winter the larger the colony is apt to be. It is likely, as the records would lead us to expect, that some of these birds are the same birds as nested in the same place last year and perhaps several years before that—though some 6,000 miles there and back are travelled in the interval. Place-memory is very faithful in this tribe of migrant bird, as the bird-ringers are proving both in Africa and Britain.

The structure of the nests is a problem, but any good chemist ought to be able to solve it by analysis. We know that mud is adhesive, though mud in sandy Surrey cannot compete with mud on the Berkshire chalk or Huntingdonshire clay; but it seems to me wildly improbable that all mud, in any county, should be firm and sticky enough to hold its own weight, plus the weight of the lining plus the weight of the birds, and should "stay put" for several years unless it was in some way treated. We know that the sticky saliva in the swallow's mouth prevents the captured fly from escaping, however often the mouth is opened. It is surely reasonable to infer that this material is also used for increasing the naturally adhesive quality of mud. It is remarkable how similarly alike in colour are all martins' nests, and dried mud may be of a variety of colours. The argument seems so reasonable, as to be almost inevitable, yet I am told that the authorities deny that the mud contains any non-muddy quality. Cannot some chemist at Rothamsted, a supreme institution, founded for the study of the soil, settle the question finally? The soil on the farmhouse wall is as interesting and may possibly be as important as the soil on the farm fields. Who knows? The chemistry of the martin's mouth may hold a vital secret. Do weeds grow on martins' nests?

2.

Twenty-two cottages alongside the Common depended on one well which was going dry. A neighbour decided at this crucial date to sink a pipe-well that should be proof against seasonal variations. The well-borers happened to come to their work at the peak of the drought. Though the meadow of high trees had been

hayed and the relic grass was almost as short as a lawn, it took fire only less readily than the neighbouring Common of No Man's Land, which is now a melancholy garb of black "in dark lieu" of green and golden gorse and purple heather and feathery willow herb, most of it in this place truly showing the origin of its fire-weed title. The sun scorched all it looked upon to a universal brown: brown bents, brown fallen leaves, brown stubble, and brown earth. On the Common the greenness only survived in incidental circular scoops of ground invisible till you walked over them. It looked as if just those two or three inches of greater distance from the sun had made all the difference, for the rest of the soft grass was like a moth-eaten carpet of felt. On such a day in such an upland place it was surely a good and timely act to bore a well.

The well-borer at any rate thought so when he put a hazel twig into my hand. Like most well-borers, and in these days most architects, he is a devout believer in "the rod," though he says ingenuously enough that geology is a great help to the diviner. He had brought three hazel forks with him, each prettily cut, as is necessary, and he was anxious to impart his art and especially to demonstrate the right grip. For himself his thumbs, he said, were "made for the job." They bend back naturally in a seductive curve that simplifies the rather complicated position of the hands grasping the two forks of the rod. Happily folk with less specially adapted thumbs could achieve the same grip if uncomfortably, and presently the hazel forks were properly lodged in our 'prentice hands, one thumb pointing North, one South, the palms upwards, elbows into the side. Within about 30 seconds the top of my rod where the forks join began to lift, like the head of a cock before it crows. I could feel the strain on the skin of hands and thumbs, and was

forced to grip yet harder to prevent the rod slipping round in my hands. You could see the fibres within the twigs twisting on themselves, a necessary adaptation where the top moved and the portion in the hand was kept still. It is a curious feeling when first experienced. The rod is irresistible, uncontrollable. Its point insists upon rising, or in some cases dipping, and the firmer the resistance of the hands the more compulsive the activity of the free end of the stick. The query still sticks in my mind: does not the spring created by the nature of the grip and the bending of the two elastic arms of the rods set in motion a force that is purely mechanical? Such a spring must produce motion, as soon as the stick is moved in the least out of the horizontal. Learned mechanics should be able to resolve this doubt authoritatively; and will they please do it? But for the time let that be: the interest in this well on this day of drought had nothing to do with scepticism or mysticism, with the rival claims of obviously mechanical or subtly electrical force. What we thought of was water.

Every animal, every plant was thinking of water (if the verb is permissible). The partridges gathered to the garden pond. The wasps, scarcely discoverable elsewhere, collected in numbers to a little stretch of gutter that the overflow moistened. The bird-bath was encircled with bees. The rats reeled in their gait as they came out of their hedgerow holes to seek in vain for any moist and succulent food. The worms were a yard and a half underground, and the sugar-beet and lucerne were lower still, travelling with the subtle intelligence of their kind (the right phrase, I believe, is the tropistic compulsion of their structure) to the layer where moisture is still held. We, the well-borers, with the help of the divining-rod, geological maps, and practical experience of the

neighbourhood, were doing much the same. Through twenty yards of best brick clay, through soft chalk, qualified by flints, through rock chalk, hard as a road, through soft chalk again the broad chisel-scoop of the borer penetrated, and was now and again drawn up and removed to make place for the "sucker," which brought up a funnelful of chalky rubbish. Then, as nicely foretold, at exactly 153 feet, the raised rod was seen to be wet. Water had been reached. The divining-rod, geology, and local experience were justified. So were the rough and simple tools of the trade; so was the master craftsman, a man of wide and various knowledge. The hole was pierced to yet another 70 feet, till the point of either saturation or bubbling springs was reached and the end of the boring-blade was almost at the level of the stream in the valley.

The stream, the rather idle, unenergetic, but agreeable river Lea, still flows unimpeded except where the abandoned mill only lets water through the bye-pass. The valley is still lush, the codlins-and-cream in flower, the moorhen and dabchick clucking and clacking happily—not, as an Essex correspondent reports, "wandering disconsolately in search of water." The wolds and fens—of wide Lincolnshire, the clay lands of little Huntingdon and Rutland, the lowlands of Norfolk and Cambridge, the rocky hills of Wales, may have lost their partial water; the wells may have shrunk as completely as the puddled ponds, and the streams shortened; but the underground lakes in the chalk on the slopes of the Chilterns remain as full as the sea itself.

Aloof from our mutations and unrest.

These little droughts mean nothing to them. The proud well-borer will promise to make good to you

in the precious wines of champagne any deficit in the supply.

3.

From the hillside you look down on links perfectly patterned out below you. The view is like an aeroplane view in which all the underlying country seems to consist of almost Euclidian diagrams and figures. If you were walking on the plain you would feel that the links were unduly crowded with folk, up here the figures of the players, "scarce so gross as beetles," are hardly noticed: they are very small and few in the wide and varied space. Down on the links you have no view of the sea at all: it is quite cut off by the mounded dunes and the coarse marram grass that with grey sea holly and the unexpected aid of spurge, just succeeds in holding the loose white sand in place. Perhaps even the plenty of thyme and geranium is scarcely noticed by many of the "engrooved golfers" who are attempting to "annihilate" their opponents by "green thoughts" of more effectual fervency. Yet "the happy golfer" must assuredly gain by appreciating his arena, his sandy course, in its larger aspect; for the place is of singular beauty and peculiar charm. charm.

Now some of these special attractions do not appear till September. At the moment the first of those fine, gentle mists that announce autumn has levelled the sea and the links, both. The fine lines of breakers look hardly less static than the rounded pebbles of the shore, and the blue and hazy bay disappears into the blue and hazy sky, so that you may not tell where one begins and the other ends. Both sun and moon (almost for the first time this summer) have laid their pathway of light across the water; and it has looked like a Jacob's ladder, not lying flat on the sea, but climbing the sky to the source of the reflection. Such common phenomena (in the true sense of the word) as this, are as certain an addition to the happiness of life, as in another sphere are Wordsworth's "little nameless unremembered acts." If you had not climbed the hill, if you had stayed behind the veil of the marram-covered dunes, you would have missed a real and solid benefit that for the rest of your time colours your affection for the scene.

One of the curiosities of the links, on which you look down, is expressed from here in a sort of broad blue band containing the plain on the landside as the dunes contain it on the seaside. It is composed of tall reeds springing from a marsh, strangely associated with the dry sand. This species of reed is always at its best in September; but it was strange to find in this edging of the dunes by Cardigan Bay the replica of a picture of September on the Huntingdonshire Ouse. Not only is the broad ribbon of reed strangely similar; but it is appreciated by the same creatures. If you want a queer experience in the observation of birds, thrust the nose of your boat into the reed beds of the Ouse some autumn evening before the swallows have left. Bands of swallows and bands of starlings converge on the beds in inordinate numbers, like the sparrows in the squares of Lisbon or Barcelona. The passion to obtain a roosting perch on the reeds is such that you and your boat, however roughly handled or full of folk, will be utterly disregarded, and you may almost pluck the birds from the reeds as you would pluck fruit from a tree. In this wild garden the swallows, like Andrew Marvel's peaches, "into my hands themselves do reach."

Now, one can understand the swallows collecting before migration, but why should the starlings, most of whom are not migrants, frequent the reeds only at particular dates? They are drawn in companies from North and South and East into the reeds near the Merioneth links by just the same mysterious seasonal attraction as to the banks of the Ouse. The movement is subsequent to the packing of the starlings, which begins very early in the year, even before some of the young are strong on the wing. Doubtless our home birds are increased by hosts of immigrants; but, so far as I know, no one has decided whether these congregations in the reeds are of native or alien origin. Local observers have watched their comings and goings with analytic care; and there is some reason to suppose that the several bands keep their cohesion, their individual habits, and depart into the same pastures, or at least in the same direction, from which they arrived.

4.

The country folk are not great naturalists as a rule, but they know the common birds and mammals and even insects and have given them good racy saxon names. One of these is daddy-long-legs; and in the dry years these queer crane-flies spread themselves as completely as young spiders on a day of gossamer. We know how the fields are spread one still October morning with "samite, mystic wonderful," by the incredible hosts of baby migrants. The daddy-long-legs, which are a good deal more wonderful than mystic, have actually suggested that picture. The sun has been reflected from their innumerable wings continuously in front of your path as you walked. The birds have behaved like trout in may-fly time; and the daddy is a sort of land mayfly. He is so clumsy, so easy a victim, so numerous, and so sudden

in his emergence. Rooks, starlings, martins, and swallows have gorged themselves, but made no apparent difference in the numbers of the host. They move over common and field with a gait that hovers between walking and flying, like the passage of domestic geese in a hurry.

The long awkward-looking legs that are lost with as little care as the points of a starfish or the tail of a slowworm are as useful, at any rate to the existence of the species, as the legs of a heron or an ibis. They act as stilts over rough country, and enable the fly to choose a congenial pitch for depositing its eggs at the roots of the grasses, as the mayfly, more trustingly, let theirs fall on the surface of the stream. In both cases perhaps gravity helps a little to reach the desired nest. Some insects ensure survival by a number of devices for bridging the deadly winter months. They "hiberniate," as a labouring friend says, in the fully developed form, like the tortoise-shell butterfly, or hang up well-protected cocoons or lay eggs that are yet more solidly proof against cold than the chrysalis. The daddy-long-legs puts all her eggs in one basket and justifies the policy. No insect more surely survives. It shares its method and success with the cockchafer. Most of us who are not ashamed to dig are peculiarly familiar with two uncomely denizens of the top spit. One is a soft whitish and peculiarly gross grub which will live for several years steadily munching in one narrow place the roots of available grasses till it is ready to transform itself into the complicated missile known as the cockchafer. The other familiar and hardly less gross grub is the leather-jacket, for in this form, too, the animal has earned a racy rural nickname; and he behaves very much as the nameless cockchafer grub; the fly and the beetle have something in common. You may find scarcely credible numbers if you happen to be

engaged in skinning the surface of an old grassfield. My belief is that the starlings can hear their snores, which would be the appropriate sound for so stout a creature in so stuffy an environment. You find the Common, now drifted over by hundreds of laying daddies, pitted with countless holes by the effective dibble of the starling's beak; and it is likely that the fat leather-jacket is at least one object of their treasure-hunting. The digger is most familiar with the grub; but the golfer knows the animal better in the next stage. Cimmerian gloom descended on the management of one of our greatest golf links, and our greatest golf critic wept public tears because putts were deflected on a brown green, if the contradiction in terms is permissible. The leather-jacket, having eaten the grass roots of the tender fescues and poas, fell asleep, but in his way raised the hard case of his pupal stage just above the surface. Vital putts were deflected by these points and science was called upon to provide a remedy for the catastrophe. It will find none better than the bird which enjoys the unfortunate fly at all stages of its life; but the daddy is to the golf green very much what the wire-worm is to the gardener.

Among the host of daddy-long-legs, mingling with them as if for the sake of protective mimicry, is a less attractive creature with a certain rough likeness that has been known to deceive. It is yet clumsier in appearance, for its body is red and swollen, and yet neater in operation, as is the way with parasites. It has no fonder, more familiar name than *ichneumon*, though its tribe is very large and not unfamiliar. Everything about it is long, its body may be an inch, and its feelers an inch. There is one of the tribe whose egg-laying apparatus is so long and, in spite of appearance, so strong that it can penetrate

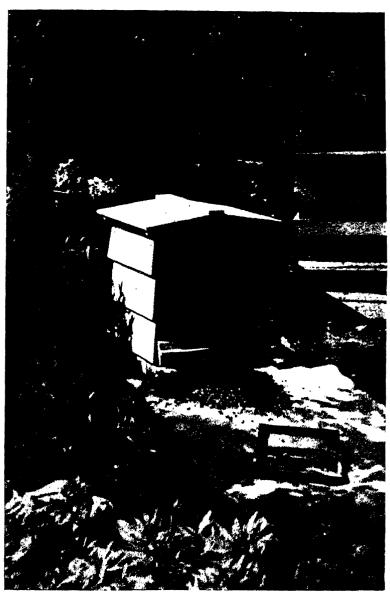
to the depths of bark and wood, where the most gigantic and, in aspect, most terrible of our waspish creatures has its being. But the daddy-like creature that lives on the life of the Puss Moss caterpillar is much commoner than the parasite of Sirex gigas, and is perhaps the only one that might be taken for a daddy-long-legs. It, too, seems to be common this year; but there are few rivals in multiplicity to the daddy. Its hosts stumble from our path as we walk; it stumbles over the barriers of our features at night; it dies in our lights and our watertubs, and is maimed on our fruit nets: what a feast of leather-jackets will grow underground for the sustenance of rook and starling before next summer's date when the new race of daddies will emerge!

5.

Our great bee expert is the village schoolmaster; and he has had experiences lately that are quite new in his records. His hive-bees, which are very kittle cattle at the best of times, prove against all expectation to be among the animals that have not enjoyed a dry summer. Such lovers of sun and warmth should have flourished beyond the normal. Everything seemed to be in their favour. Was there ever more abundant blossom? The apple, pear, and plum orchards were an object of pilgrimage. The lime flower, which often supplies the second great honey flow, scented the countryside. Even to-day, though the "crowded hour of glorious life" is over, the commons up to the very edge of London are in the purple, and about the ling, which flowers even where it has been close cut, are innumerable harebells, and the yellow tormentil still survives after the vanishing of the bedstraw and thyme. What more could a busy hive-bee

desire? This "murmur of innumerable bees" has expressed in our ears the reality of a desirable summer, as palpably as a shimmering air announces vibrant heat to our eyes.

Yet things are not always what they seem, or even what they seem to the expert. Flowers have been marvellous. Much ambrosial sap, enriched by the sun and not diluted by water, has bred flower buds in rare profusion. As evidence, look at the "keys" on the ashes or the acorns on the oaks or green pendants on the hornbeam; but the nectar dear to the bees and necessary to their very life demands a greater amount of moisture than it has been vouchsafed. So, at any rate, the baffled bee-keepers suggest in order to account for the state of their hives. The plain, surprising truth faces them that a number of the bees are on the edge of starvation just at the date when the hives should be overflowing with fatness. Here are two hives in a colony of over a score. They were strong swarms and possess young vigorous queens; but the wasps were seen to be going in and out almost without challenge or protest; and there is no worse sign of feebleness. It is bad for the wasp that ventures among the stores of a vigorous community. The report was brought to the bee-keeper by a small and observant daughter; and he refused to believe it till her observations were tested. The hives on examination were found to be as nearly as may be empty of honey. The bees were in actual need of food. In his experience of thirtyfive years of bee-keeping he had seldom, if ever, been more astonished or more disappointed. That it was a bad year for honey in his district he knew; but that a healthy and vigorous company should have failed to store enough for their own consumption during the first month of autumn is a thing his "imagination boggles at."



A. E. R. Rooker Roberts

BEE HIVE

The creation of honey in the nectary of a flower is a marvellously subtle alchemy. Flowers are not fertilised unless sunshine and moisture are nicely compounded. The pollen must be of an exact consistency before it can reach its goal; and it is plausibly conjectured that a like niceness in the consistency of the honey is necessary for the bee, if she is to get food as well as give it in the interchange of benefits. There were periods one dry summer (as gardeners noted in their French beans) when the flowers did not set; and the defect was in the dryness of the air. Even so there were periods when the bees failed altogether of their proper booty. The bee-keeper will not reap a quarter of the better harvests he remembers, when hive after hive yielded him eighty to a hundred pounds of honey.

The wasps, which announced to the quick-eyed messenger the feeble state of the bees, have themselves failed to flourish. Most of us, at least in one neighbourhood, saw queen wasps in multitude in the late spring. The tale was certainly abnormal. More than this: we found a nest or two at a date earlier than any in our records. For myself, I found one in the last week of June, when already a number of grubs had hatched. We anticipated a host of greedy wasps among the plums; and some country folk (who have always an eye for what they would not call teleology) went so far as to argue that a good plum year meant a good wasp year; the insect flourished when its food flourished. All the prognostics were as vain as the Sybil's prophecies, written on blown leaves. We have scarcely seen more worker wasps among the plums than we saw queens on the mouldered fence-posts. Was the campaign against the queens the cause, or did the queens come out from winter quarters too soon, under the temptation of a treacherous spring,

or has some quality in the season weakened the wasps, as it has weakened the bees? Who shall say? Out of these vain questions rises one plain obligation: "Watch the food store of the bees."

6.

Not even Hickling Broad, or Skokholm, or Scolt Head, or Bempton Cliffs, which have each their special supremacies, can rival Abbotsbury, which is in some danger of being sacrificed to the need of an urban water supply. It is, of course, compact of history. Was not Queen Elizabeth, who was not easily cheated, particular about her ownership in the swans, which have chiefly made Abbotsbury famous? Even the present keeper of the birds may be said to hold an hereditary post; and a knowledge of most birds is part of his inheritance. The buildings near by are as eloquent of history as Amesbury itself; but it is when you have turned your back on mortar and walked across the two flat grassfields that you begin to understand the real antiquity of the habitation.

Most people doubtless go to see the swans. The pay-

Most people doubtless go to see the swans. The payment of a small entrance fee, the presence of keepers, the few small cages, the kept walks and formal (though rare) flowers give some suggestion of a zoo. The swans are tamer than wild birds; and in recent lean years, when particular maladies have attacked the zostero grasses that blush beneath the surface of the water, the birds are fed by hand. You must travel to an Australian lagoon or river and flush a few hundred pelican to see anything comparable with the assemblage of swans; and there, even where ibis breed, is nothing quite like the succession of immense nests. You may see swans on the nest in a great many places; in Worcester College gardens,

from the railway where it crosses the Lea, or off Kew Gardens, to give three casual examples. You may catch sight of the spread wings high over the flats beside Battersea Park, and scores of swimming swans are a standard spectacle for those who venture in a steamer to the Kyles of Bute. But a thousand and more swans and nests by the hundred—these make a wonder of the world. We must think first of swans when we think of Abbotsbury. The association of ideas is overwhelming.

Nevertheless Abbotsbury would be the peer of the greater sanctuaries if there were no swans and no zostera to justify the use of their long necks. As plentiful grass just the right distance below the surface gives the swans their optimum of conditions, as the men of science say, so do other virtues inevitably draw other species of bird and even certain species of plant. The secret of the place is the fine gradation of fresh water into salt, as the birds know well. The sea is kept at bay by one of the most curious and immense shingle banks in the world. At Scolt Head, and many such a place, for example the plain that once was Rye Harbour, the shingle, often made of rubbed flints, serves as mere vertebræ for the sand and the psamma grass or the sea holly, or even the viper's bugloss, to colonise. This immense bank is like the cliff, rocky, a solid barrier with a mobile glacis, sorted into a mosaic pattern by tide and wind. It is too solid to be breached and torn, like a great bank at Newgall Sands, in Pembrokeshire, by the furies of any tempest and the weight of any sea. This splendid defence guards a great lagoon at Abbotsbury; and you must go to the barrier—for preference in late June—to see one of the distinctions of the region. The terns, the sea-swallows nest there, separated from the swans as the stone

crop is separated from the great water-dropwort of the inner dykes by a comely lake. When the birds have been fasting and are fouled a little by salt water, they fly to the neighbourhood of the swans to wash in the soft fresh water at the edge of the reeds.

The reed beds are themselves a marvel, an aeolian harp in the ears of man and bird, both. They are thus on many of our rivers, on the Essex Thames, and, best of all, on the Ouse where it skirts the Port Holm at Godmanchester and Huntingdon between the double railway bridge and Lee's brook. These are a haven to the reed warbler, whose pendant nest, a favourite of the cuckoo's, you, too, can hardly miss. But at Abbotsbury, perhaps because the bed is so wide, so inviolate, rarer birds than these pitch their lonely tents. Luckier persons have heard the lovely song even of the marsh warbler. Among the reeds are delightful inlets and bays where the water is salter or fresher, according to the distance from the sea. One bay especially is pleasing to the taste of duck of many sorts, and at the inland edge is one of the oldest of the decoys, those ingenious and rather brutal traps designed in an age when such food made the difference between luxury and starvation. How often in the monkish chronicles of another Fenland we find allusions to the wild-bird snare! And even to-day one of the few decoys that excels the subtle passages from the reed-bay at Abbotsbury is to be seen near Crowland Abbey, whose monks, like those of Abbotsbury, found the wild bird, including even the snipe, "facile to snare."

7.

News came that players were to act on an old stage the latest scene in the progressive pageant of English land-

scape. To find it we drove first through some of the fairest scenery of Norfolk, a county as famous for its grain crops as its wild sanctuaries, for its game and its barley stubbles as its migrant birds and its Broads. Almost all the way we were enveloped in the scent of bracken, more powerful and pungent even than the scent of pines drawn out by a midday sun. Inland and beyond the woods and commons opened out immense stretches of grain, as we measure immensity in this little country: the aisles of stook as long for an English field as the aisles of Ely for a cathedral. For an old-fashioned harvest field always suggests some great and holy building; the regular pillars of fluted stooks lead the thought to some eastern altar and the sky seems a patterned roof of lofty but finite elevation.

Most of the corn was already cut, and the country seemed almost empty of workers till we came upon a yard where a score of men were busy among a dozen stacks. They gave us news of the strange harvesting that we sought, for it is discussed in every cottage in every parish thereabouts. We were to turn right and then left and then right again, round the big field of sugar beet, cross a field, and on the other side of the wood we should see what we went out to see. Where the beet field ended was the first sign of the new thing: a gatepost had been dug up and cast aside to provide a royal road. Beyond, some immense and weighty machine had dug channels across the stable roadway; and they made a very rough sea for our flippant vehicle; but the track took us straight through the wood, and further on was the theatre itself and the play in progress.

On either side the narrow T-shaped wood of pines where the pigeons still coold contentedly, in spite of the mechanical clamour, stretched out wide fields of barley,

baked to a uniform hue, to a uniform ripeness, a sight to gratify the eye of any honest farmer. From one side of the long stroke of the T came a strange rumour, a medley of many noises never approached by the cutter-and-binder and the mere tractor; and soon the new Colossus heaved into sight. A swathe of three good yards of the nodding barley fell at each circle. The monster dropped a muddle of tangled straw behind it, and shot out groups of sacks on the outward side. It was cutting, thrashing, sorting, and sacking all in one process—let that suffice for its mechanics. Its influence on the most characteristic of our English scenes is the present concern.

Since Ruth was fondly watched

Praising God among the stooks

the sheaf and the group of sheaves have served for the very characters in which the tale of the world's harvest is written. We have seen in our days several quick pictorial changes, but all have left this alphabet unaltered. No longer do women and children go gleaning and trapes home in family parties carrying snoods of wheat tied tight just below the ears like some formal bouquet. No longer do we see the rhythm of mowers in echelon, sweating themselves to mere sinew, as they cut and shove the heavy burden into swathes, sometimes with the aid of shields on their scythes. No one any longer makes ropes of straw to bind the sheaves. No longer is the festival, which was as like a religious festival as the field resembles a church, sweetly drawn out till the September day when the old shire horse moved slowly stackwards to the joyful Harvest Home. This rich deliberation of hard human labour has wholly passed within our time. In Russia, we are told, gleaning is a crime punishable with death. It might be so in England for the number of gleaners.

The change to this point was great but did not spoil the glory of harvest, rather to our surprise; and perhaps we may accept the latest and perhaps greater change without excess of regret. It is a great loss that this English-made "Harvester-thresher" permits no sheaf. A huddle and muddle of straw over the field is as poor an alternative to the sheaf as the long straws left half erect on prairie farms behind machines that do not trouble to cut it at all, but are content merely to comb off the ears, to skim the cream and leave the milk. The loss of the cornstack, that solid and satisfying pentagon, well worth the pride of many a Sunday visit, is hardly less vital. The full sense of harvest prevails, nevertheless. After all, the hedgerow and the little field are new. The Pastons knew no such beauties, and where hedges are levelled to give freer pasture to the new monster, we restore the country to its earlier nature. These ample fields of barley with no division but woodland were singularly inspiring, were in apostolic succession to the Old Testament, to the Egyptian harvest. They are in harmony with the quality of Norfolk, where wide barren areas of gorse and bracken and firs lie cheek by jowl with the most congenial barley land in the world. Even on the biggest harvest prairie was a little, little stack, heaped out of the headland grain where the scythe-mowers had made beginning. Only here and there in the sandy country, the chalk country, and perhaps the clay country, will the field give place to the prairie: and we may as well adopt the mood of Ruth, even among the litter of straw and the rumble of the caterpillar tractor. "Joy in harvest" remains.

OCTOBER

Country Harvests—Purple Patches—A Better Eden—A Cider Orchard—The End of the Farm—Where Ravens Reign

Ι.

the village station, which the train reached at Man hour that had little relation to the time-table, a porter, who was a born villager, cheered my drooping spirits by assuring me that the soft rain, which was falling, would inevitably produce a plentiful crop of The subject further inclined him to mushrooms. savoury reminiscences. One year in his youth his cottage garden suddenly produced a plentiful crop of morels; and his mother at once made a beef-steak and kidney pie, which she flavoured with the morels. Never was any dish quite so delicious. The morel remained as a type of ambrosia in the minds of all who ate it. Its form is as clear in the memory as its savour: the quaint cells on its peaked hat, the curious spongy material, the general look of rarity and distinction; but they are small details beside the ineffable flavour.

The country porter's prophecy, stimulated by this dulcet memory, was justified fully and immediately. The very next day the meadows were dotted with mushrooms. One well-cut and much used tennis lawn was studded with "buttons," and horse mushrooms began to swell (like the Harrow cricket ball at this date) under the trees. The porter's reminiscences included a reference to the taste of certain "engineers from Leicester" who had a peculiar fondness for the horse mushroom, which

"couldn't be too big for 'em"; but that was a taste that he, with his dainty memory of the fairy-like morels, could not understand, and could hardly forgive. The engineers from Leicester had clearly lost caste in his opinion.

I once heard a countrywoman, very learned in country lore, confess with a sort of awe, or was it boast? that she herself was a Boletus eater. She sought the ugly things in Devon woods and had them cooked; but was forced to eat alone; no one else had the courage in spite of the seductive odour. So there are fairy-ring eaters and puff-ball eaters and beef-steak mushroom eaters who wonder at the abstinence of an unbelieving world. In almost every country place within Britain the mushroom harvest is the most highly appreciated; but the zeal is narrow. Nothing is picked but the field agaric. Even the morel is passed by doubtless because it is rare and curiously fickle in its appearance. It will suddenly sprout from a gravel path or the shade of a gooseberry bush or in a damp hollow by the wood; but be seen no more for years. The field agaric is much more regular. I know a cricket-ground where it appears about this date every year; and one may return to a place after the absence of a generation and find these mushrooms growing exactly where they grew in our youth. They even taste as good -or nearly as good.

This sudden output of mushrooms completes the sum of country harvests and nearly all of them, in this annus mirabilis, are of exceptional worth. So many nuts—much the most valuable crop to animals other than man—were never seen, and a number of country hedges have been pulled to pieces by eager youths. The rooks, tempted by the multitude of the fruit, have begun before the due date to fall upon the walnut trees and in some

places have knocked down as many as a good "basher" could have secured. Blackberries, ripe weeks before the normal date, have defied the drought; and within the last few years have attracted more pickers than ever. It seems that the commercial grower of particular varieties has spread the cult; and, as often, the increase of the supply has raised the demand in greater proportion. It is surprising that a shrub of such general distribution should not have been discovered or appreciated by birds or other animals. Occasionally a dog will discover a pretty taste in the berry and choose his fruit with care; but for the rest the one animal that shows any particular fondness is the pheasant; and it is only in some regions that pheasants show a liking for the food. Perhaps the reason is that the berries are singularly unpalatable when red, and the birds that are tempted by the colour to make trial at this stage are for ever after repelled.

Red is the attractive colour; but how do birds distinguish the good from the bad, the wholesome from the poisonous? In the hedgerows to-day you may see alongside one another strings of berries of the black and the white bryony and of the woody nightshade. If you pick from each and mix up the booty it is extremely difficult to sort them out, but the only one of the three that birds like, so far as I know, is the nightshade (and country people are inclined to damn all the species as "deadly"). Pheasants again—birds with a catholic taste—will travel a considerable distance to enjoy it.

How much fruit is useless for consumption? The blackthorns are thick with sloes gorgeous with bloom. The crab trees drop sackfuls of fruit, attractive at least in appearance, to the ground, where it slowly disappears by mere putrefaction, except for an occasional visit just before decay is complete from some belated wasp or

butterfly. Some day, perhaps, we shall plant our hedgerows as we plant an orchard with the better sorts of blackberry, with sweet, or cider apples, with cobnuts and bullace plums; but if we do, as some recommend, they will hardly remain the quiet sanctuaries they have been, broken occasionally and at short seasons by the nutters and blackberriers.

2.

Which corner of England is the best, which præter omnes angulos ridet, in the eyes of those who go forth to see what Lord de Tabley called the "Royal Pageant of the Earth" in autumn? Even a London or suburban park may register a claim: Hyde Park, Kew Gardens, or Dulwich. In parts of South London trees grow peculiarly tall, and certain rarities are to be found such as the Judas tree by the Dulwich picture gallery. The exotic creeper has given a claim even to small town houses to set up in rivalry of the Alleghany mountains; and no "flower in a crannied wall" suggests more problems than the so-called Ampelopsis Veitchii. It is a compass, always turning when it can to the North; the green of the leaf flows back into the stem almost at a gallop, and leaves every sort of shade of "hectic red" behind it, from deep purple to light pink, fading away into pure pallor. It strangely doubles the process common to other trees that cast their leaves. A little corky growth at the tip of the stem throws off the gorgeous leaf, so that for a while the creeper has the ludicrous appearance of a spiny caterpillar. The pink and white leaf stalks, awkwardly left behind, stick out at a sharp and foolish angle, till after a day or two these, too, are thrust off to join the leaf. Perhaps some super-Darwinian can explain what

purpose is served by this double rejection. If these stems fall before the time of heavy frosts, they are seized voraciously by the worms, as ideal doorways; and a patch of adjacent lawn may look as if there were an underground stem sending up these queer spikes. In the present season these careful worms have surpassed themselves; and one must infer from the number of fallen leaves they have dragged down that such excessive autumnal activity must add much to the total sum of fertility, to the "mellow fruitfulness" of the soil that spring will enjoy.

The creeper on an urban wall, for all its colour, cannot, of course, vie with the soberer colours of the countryside, nor may any sumach or rhus cotinus or narrowleaved berberis of the garden so satisfy the eye as, say, a clump of beech and larch above the junipers on an else bare Berkshire down, or a stretch of bracken on a North Devon hillside: the partridge is a lovelier bird than the parrot. The beech is the master, the favourite tree of the season, with its smooth-grey trunk, its arms and hands stretched out in a gesture of welcome, and, above all, a harmony of colour, as defiant of analysis as a melody in music. "Chestnut Sunday" is not more generally celebrated than the pilgrimage to High Wycombe or the Buckinghamshire woods, where beeches marvellously flourish. You see the tree in more artificial salience on the edge of Salisbury Plain, where isolated clumps stand out in as strange isolation as the Stones of Stonehenge themselves—separate and, for all their colour, stark and monumental. Somewhere between these woods and these small stiff plantations come such little groves as guard the descent to Broadway, in the heart of the Cotswolds.

The beeches are splendid in England—as indeed they

are even in the middle of such industrial and often ugly scenes as the German Ruhr, where the trees are grown wholly to supply pit props. "The oak and the ash and the bonny ivy tree," of a singularly English song, take a second place to the beech; and yet the palm perhaps must be refused even to the Wycombe beech woods, however finely tilted to catch the shifting light. There are more variable, more English, scenes that give the most memorable pleasure to our travellers in beauty. I would put first those avenues or corridors where walls and roofs are composed of a mingled arras of red and brown and yellow and green-above, on either side, beneath the feet and even in the air when the leaves float, with the wayward droop of a butterfly, in a cornerwise passage down the mild west wind. One such is composed of oak and elm and beech on one side and a tall hedge of thorn and holly on the other. Every traveller by road finds himself continually in such corridors, especially perhaps in the Home Counties. One of the loveliest within my memory is known as Dark Entry, between Pangbourne and Bradfield in Berkshire.

You must go northwards, perhaps best to Westmorland, to discover that the ground may rival the colours of the wood in October as in March, the month of gorse blossom, or August when ling and heather are purple; but North America so excels us in ground colours, bright and various as any Eastern aspect, that even the Lakes must be a little paled. He who has seen the sumachs, and climbing ampelidae among the maples, among the firs, beeches, pears, cherries, poplars, and guelders and the rest on the slopes of Lake Erie or on the river banks of Austria will confess this supremacy as he hears admiration of our woods or even of our parks, however vivid with wild cherry, with Norwegian maples,

or acer platanoides, seen between the pillars of English scenery, the green and yellow elms. A distinctive glory no other country possesses—and it is at its highest in October—is the hedgerow, in which, against all reasonableness, an occasional oak is allowed to flourish. The best are tall and untrimmed. The filigree and its chains of briar berry are alternated with holly already diapered with coral, and this gives place to a bush that is almost a tree of spindle so bright in leaf that the bright berries are obscure, and all the colours half-cloaked by a mist of the feathery seeds of the wild clematis.

3.

Opposite the cottage, which with the others in "The Bottom" faces south, is a grassfield sloping at an angle to the north which each evening glows a deep golden as the sun sinks. Each dry bent of cocksfoot grass, itself yellow, reflects the red and yellow light. The field has been left desert. Its owner has departed; and for a year at any rate found no successor. The aftergrowth is so thick and green below the tall and now seedless straws that even to-day if it were cut the crop would fill a stack-yard. You do not walk across it; you wade; and the only regular frequenters, the rabbits, have made runs so deep down that even a hare or perhaps a fox would scarcely be visible. Other fields in the neighbourhood take on the same golden glow; and it is the mark of a land that has been left to itself, of a garden of Eden that at the fall has produced not thorns and briars but a golden glory.

Walking across such a field we found lying on a flattened bed of grass a fresh wood-pigeon's egg, a delicate pink, like the feathers of an ibis, with the shining of the yolk through the luminous white. Such solitary eggs are not altogether uncommon; but this was a prodigy, for the date was the third week of September; nevertheless it was already known that the wood pigeons were breeding. Two nests are in being in the spinney; and each evening as the golden glow spreads over the field we hear, as if in praise of the light, the rhythmic croon and coo of a pigeon from the clump of trees in the corner. Now, if ever, you feel what Wordsworth meant when he preferred the stock-dove—but did he mean the stock-dove?—before the nightingale, because he sang

Of serious faith and inward glee.

It is a season of "inward glee"; and Tennyson, too, knew what he was about when he wrote (in perhaps the best unrhymed lyric in the language) "the happy autumn fields." For a sort of rich peacefulness, you will not discover the world over, a scene to compare with English autumn fields and their hedgerow frames.

You might have feared that such neglected fields, to be found in most counties, would have destroyed the old English charm, would have impoverished our humane landscape; and here and there it is so, where thorns and briars, where thistle and dock, have seized the vacant room. That day of the discovery of the pigeon's egg—a nugget in a slag-heap—I walked over one field that was sheer melancholy. The creeping thistle and the royal thistle, dock and ragwort, and a number of other devils had invaded the once swept and garnished acres. Except for a certain colourfulness, much enhanced by a sprinkling of succory, it was a pitiful sight. It had the unpleasantness that Goldsmith found in Sweet Auburn where

Half a tillage mocked the smiling plain.

Half cultivation, bad cultivation, is more than ugly and unpleasant: it lets loose all manner of ills on the land, especially thistles. It is good for neither man nor beast, like the east winds of January. But these weeds and some others are the tares of cultivation, always dogging the cultivator's footsteps; they are often at a loss when the cultivator clean vanishes, like parasites that cannot live without their peculiar host.

Some of these happy autumn fields are as nearly as may be weedless. The grass has won; and, indeed, it is a definite discovery of the year that you may destroy every thistle in a field, however thickly beset, if you take successive crops of hay. The big thistles are like that singularly handsome dwarf thistle which flourishes on the commons: if its low leaves cannot get their full share of light and air they wither and the plant succumbs. So the bigger thistle in deep hay. The grass behaves like a thick grove of evergreen trees: nothing grows beneath its shade. How strangely the landscape changes where fields are afforested, not only over wide spaces of afforestation, as at Thetford, but on this field and that, where little plantations have come into being. At first we see an uncomfortable jumble of weeds. Then the more powerful grasses, especially cocksfoot, which is the master grass of England, begins to conquer, and the plantation may be almost as good to look at as a field of corn. Then over the grass begin to thrust upwards the spires of pine and fir and larch, which steadily conquer both the grass and any relic weed. They will make pleasant or forbidding woods, as it may be. A wood should be lovely, and its rides are as the cloisters of a sanctuary; but it is not always so. The gloomiest patch of England that I know is a Shropshire wood of Sitka spruce now some eighteen years old. It is shunned like a



Gehenna by every living thing, plant or animal. Pheasants, even the fir-loving pigeons, hate the sharpness of its knobs and the closeness of its obstinate shade. If any winged beast appears there it is Apollyon.

How different the grassfield, even the deserted grassfield! How snug the "forms" of hare and rabbit! They are like the nests of a redshank, a bird that deserves some of the repute won by the Australian bower bird, for it pulls the grasses into a canopy over its eggs with at least as great skill and artistic precision as the bower bird contrives its corridor or arch. The rabbits nuzzle down so warmly and securely in their curtained beds, that you may stand and watch them from a yard or two, more peacefully than any photographer from his elaborate "hide." Even the pheasants make a sort of form in such places and rise reluctantly from the pheasant covert, for they are groundlings by nature; though we have taught them to prefer the woods, such golden fields as these are restoring the old instinct.

4.

On the crown of a Western slope flourishes an orchard heavy with fruit beyond any record. You may scarcely see the grass under some of the trees for the carpet of windfalls; and though tons of fruit lie on the ground in heaps or in layers and other tons have been carried away in sacks, the trees were still burdened when I saw them with a greater weight of fruit than they could safely support. Some large boughs and many small boughs had been torn off in spite, perhaps occasionally because of their supporting props. Particular trees looked like Indian teepees or wigwams by reason of the circle of poles set up to assist the laden boughs. The apples were of all sorts, Normans

and Jerseys in variety, Fox Whelps and Badger Whelps, Médaille d'Or and Wein-apfel, English, French, and German apples, some red and little, like Fox Whelp, some big and pale, like "Bulmer's Norman," but all sharing alike the peculiar qualities that go to make the cider apple.

And what are these qualities? All animals, from man to the ant, appreciate sweetness in an apple. The holes in our Cox's orange, made by ants or birds on the trees, or by rats in the store cupboard, are tributes to the delicate scented sweetness that comes over the apple when it ripens and matures. The fruit is like the juice of the grape which at a certain age and in right conditions converts its cruder oils into volatile ethers of the subtlest savour. What was acid becomes sweetness. This beneficent change, you might think, never comes to the cider apple or the perry pear. If you are brave enough to bite into the perry pear your mouth is "drawn," as they say, almost as when you eat a sloe. Some forbidding astringency is imparted. If you look at the wound in the fruit of a Médaille d'Or after your brave bite the white flesh will turn brown within a few seconds as the juices are oxidised by contact with the air. The interpretation is perhaps unexpected to those who are strange to the fruit and have, like most of us, rather vague ideas of the exact distinction between the meanings of acid and sour. The cider apple—surprisingly—is peculiarly full of sugar. It has no tart sourness, such as belongs to the eating apple (strange phrase!) before it is ripe. But the abundance of sugar is, or may be, associated with an equal abundance of tannin, a forbidding astringent, until the apple is squeezed and crushed, when it becomes a prime necessity in our "English wine." You can no more make good cider out of "cookers" and "eaters" than champagne out of coarse grapes.

This week cider apples are coming over from France in shiploads. The French harvests are earlier than ours, but our economic entomologists have recently decided that the pernicious caterpillar of the Colorado beetle (brought to France in the war) goes to ground not later than October 14. After that critical date it is therefore considered safe to import the French apples. In France they will tell you—at any rate in some districts—that the queen of cider apples is Médaille d'Or, which is only less prolific than an aphis and of a delectable commixture of sugar and tannin. But Médaille d'Or has a suicidal tendency, like the apples we put in store, which are rotted by their own emanations. It is so prolific that it bears many more apples than its weak shoots can support and is apt to break its own limbs with its own excesses. Such a fate has befallen many sorts of fruit, especially plums, in any bountiful year, however careful the propping of the boughs. The experts dream of the day when they shall have created a Médaille d'Or of an undiminished carat, but with tougher cells in the branch, and so it shall be enabled without wrenching of twig or limb, to bear what wealth it pleases. There is, indeed, a single tree in existence, on which a dozen or so crosses of the Médaille d'Or are grafted, and you may compare at a single glance and discover whether or no the joint qualities of toughness of stalk and richness of produce have at last been wedded.

It is a pleasant thing to see in some of the Western counties, perhaps most distinctively in Herefordshire, that the orchards, which had fallen more and more into decay, have begun to revive. The cider apple is best as a tall, a towering standard, that gives plenty of room below its canopy for the grazing of stock. How lovely are these Western and South-Western orchards compared

even with the bush orchards of Kent or Wisbech! In some of the older orchards no more than a single apple or pear survives; but happily a great Cambridge man of science has, with abettors, toured through the West year after year and collected into a sort of living museum every known variety of cider apple and perry pear; and these old sorts, thanks to skill in grafting, flourish on young and lusty stock. The pick of the bunch still number over a hundred and grow side by side in a single orchard, and none that is likely to be of any value is any longer in danger of extinction. There is a sentimental value in such rescue that extends beyond the economic or scientific value of the salvage. What a fine art this grafting is! I saw one orchard tree as big and flourishing as its neighbours, bearing many hundredweight of apples, comely and natural in shape, which was grafted just four and a half years ago. You could hardly see where the grafts had been inserted and the old boughs cut. All or any of us may, when we please, change a variety into a better variety and not lose more than a year or two. We can, of course, have different varieties on the same tree, and it is, perhaps, surprising that such freaks of grafting are not more common. We graft at Easter time: yet one of these Western wizards has, for experiment's sake, successfully grafted at every season, almost in every month of the year. More power to his elbow!

The orchards of the West—the true Hesperides—that begin to return to their ancient, or more than their ancient, glory, are a part of the landscape, like wood and field, and in autumn give you the savour for harvest, and the joy in harvest, as fully as any cornfield, and much more fully than the eastern bush and cordon orchards of what are called eating apples. The trees are almost like forest trees, growing lustily and interlacing their boughs

freely of any planter, deceived by the slender girth of the young tree, has set them nearer than a good thirty feet. You walk in a wood when you walk through the orchard, but you walk also between hedgerows and in an open field, where the grass is sweet and green. High "bull-finch" hedges surround it; and birds, which are repelled by a forest proper, gather to this blessed place both to nest and to feed. You hear even at harvest time the hilarious laughter of the woodpecker, the thin autumnal pipe of the robins, and the cry of the tits. You wonder for a moment, so big and bright it looked, whether the missel thrush was not a dove, and the blackbirds nearby are in flocks almost like starlings.

You may infer the presence of birds from other signs. Many trees bear a girdle of corrugated paper, which is found to be the best trap for some of the worst pests of the apple; and, indeed, it attracts all sorts of creatures, including the furtive earwig or "ere-wiggle" that delights in darkness. The purpose of the paper bands has been discovered by the woodpeckers, both green and spotted, which abound in the district; and the tits follow suit. Any band left in position for a few weeks is freely punctured, as a starling punctures the lawn, or even torn to ribbons by the insect-hunters. They discover this gift of the cider-orchard keeper as surely as the green-finches gather to the heaps of apple pulp at the very doors of the factory in the town; and are as welcome thieves.

The trees in the orchard drop fatness quite literally. You take ladders for other apples, and gather them carefully one by one, lamenting earlier windfalls. You wait for the cider apple to drop if it will, without even the encouragement that the "bashers" extend to the walnut. The farmer perambulates his orchard, just tapping this

bough or that, or giving it a little shake. If a shower falls he names a near date for the collection of this variety. Happily the sorts ripen at very different dates, so that his harvest is spread out conveniently both for himself and the cider factory. The apples are continually falling without harm on the fresh grass; and with the earlier trees these first fruits have been raked into heaps; and are the stooks of the orchard. What a satisfying sense of abundance they give. Some red, some white, some variegated, far off under the shade of the trees they suggest that the sheep, turned out of the orchard just before the first apples fell, are still asleep under the trees.

A grain farmer looks over the nodding ears of his yeoman wheat, stooping to see the level surface of gold, and says: "We shall thresh five quarters to the acre." It is no great astonishment if his estimate in coombs or bushels or pounds or quarters is closely accurate. The ears are like one another, and the average of "berries" to the ear roughly constant. If one is filled to the top so are the others. The tally of apples demands a nicer sense. I have walked year after year through a Western orchard of 60 or 70 acres with a specialist visiting his neighbour's farm. The crop was very large, though not a best on record. The varieties were many, and the trees of different size and age. Under some were cushions of fruit, under some a carpet, though most were still—in Bacon's phrase—fast of their fruit. He took no notes, no measures, no reckonings; but when the walk was over he said: "Your crop will be near 270 tons." It proved to be 267. So truly can a seeing eye see, to the wonder of those myopic in such matters.

No such venture was made the next year; but we stopped and looked and wondered at one single tree. It came from France a generation ago; but proved to be

different from its fellows; and not the best experts in France or England could put a name to it, so it was rechristened, after both its old and new home, Bulmer's Norman. It has grown portentously. It bears apples very much bigger than other cider apples, and when the crop, like wheat, is "white to harvest," the dome of apples becomes a feature of the landscape. The hope of its yield was reckoned by a visitor from half a ton to twelve and a half hundredweights. It is a great weight; but it is authoritatively recorded—by one of our very greatest men of science—that a perry pear in the neighbourhood once bore two and a half tons of fruit. But then the pear is heavy and sinks. Most cider apples are light and float.

5.

Whether the farm sale was more comic or more pathetic, it would be hard to decide; but the neighbours and the auctioneer decided, almost before it began, to treat it as a joke. The country man loves a sale, merely as a spectacle, and a considerable company wandered in a promiscuous queue from ploughland to farm building, from cow-yard to green field, as they were bidden, passing casual heaps of strange junk deposited as fancy pleased. Before each of these the observant auctioneer and his man paused for a brief minute or two in the attempt to wheedle a few shillings off us for this decayed debris of a once prosperous holding. The first lot was frankly labelled old iron, and lay against the side of a hovel that looked as if only the iron kept it upright. The heap fetched 2s. 6d.; and that set the note. Every successive heap was recorded as old iron. The auctioneer fought a hard fight to prevent the bidding advancing, if it advanced at all, by sixpences. Finally, when a bidder

disobeyed his injunction, he said, "I'll advance you the sixpence, and that makes your bid a shilling"; and so put an end to the half-measures.

A deal of farming history was written for those who cared to read in the proceedings. For example, two lines of antique rubbish were ranged across an arable field. Half of it had just been subjected to a "cultivator"; and you could detect the reason, which was not, perhaps, wholly altruistic, and for the sake of the next tenant, if any. The sides and tops and roots of thistles and docks protruded freely. The cultivation was an act of concealment, not of preparation for new crops. Time was when a departing farmer could claim very considerable sums for the unexhausted wealth he had left in the ground. To-day damages or dilapidations for weedy and pauperised fields are a less unlikely sequel. It was said of the last crop that one farmer in another part of England reaped in his last harvest that the straw was so short that the knives of the reaper cut through the ears of barley. What exactly had grown—beside thistles—on the scene of the sale was difficult to conjecture, but one might, perhaps, safely infer the shortness of its straw, if the crop was grain.

Nevertheless, the holding was an arable not a grass holding, and that at any rate is on the credit side; and the first people into the field might have seen a large covey of partridges rise and fly over the wood. They are birds of the ploughland. It is almost a general rule, the better the farmery, the more the partridges; and this holding, which may never be cultivated again, had attracted a good many birds. We may perhaps take it as an omen that the partridges have flourished almost beyond the best in the records (at least, in some districts) in the year when the arable area has begun to increase.

This melancholy but facetious sale was typical of the past rather than the present.

Some of the strangest heaps of old iron were the machines and appartus once costly and shining. Among the bidders was a man well known among machinists, and he was repeatedly urged by the auctioneer to buy a drill or a reaper and binder or a rake for his museum; and I fancied that one appeal was successful. The machines were deep in rust, and, indeed, a large number of farmers "harden off" their apparatus very much as a gardener hardens off his lettuces—by mere exposure to the weather. The interior ridge of one cart was completely fringed with growing grass. The light seed of a dry season had blown into the crevices and the recent rains had germinated it. When the cart, whose wheels looked scarcely capable of revolution, would not sell, a humorist suggested that the man who purchased would have some excellent grazing thrown in. The humble sums seldom amounting to a pound, which were offered and taken for such scrap heaps would have been yet smaller but for the animated bidding of a professor. He was making research into the life history of many small insects and such cattle; and for research purposes he keeps a goat farm. So it came about that a last home for the old forks and drills and tools will be a modern biological research station!

The first part of the sale ended with a wholly vain effort to sell a cupboard with "imitation Adam decoration in the front" as a chicken coop or rabbit hutch; and, with some laughter and much relief, we trapesed off to the second part of the sale—the livestock. "Two powerful cart-horses" had been spoken of; and the auctioneer led us to a pretty green pasture behind the decaying outhouses. There appeared an infinitely pathetic creature

such as the Knight saw in Childe Roland to the Dark Tower Came. Its ribs were like ridges and furrows; its heels naked of hair; it "stood over" as its age made likely. "You'd better make it trot, or there'll be an inquiry," someone called out; and the old creature, trying its best to the last, responded nobly. It was still capable of a job of work, and was knocked down to an admiring bidder for 30s.

We migrated from the grassfield to the "muck yard." What a scene! The house—the home—entirely blanketed by pollard sycamores, looked out between decaying sheds on a manurial yard and a green stagnant pond almost against the walls. In this space the few milch cows and steers bumped one another about while the auctioneer's man made clear with his stick which was being sold. Even here England's name for good stock was echoed. The British Friesians and Shorthorns were good useful animals, with a hint even of aristocratic lineage; and at last the auctioneer got the value of his drive home, as he said. Indeed, the prices were reasonably high; and the neighbours, who had been faithfully filling in the price of every article on their catalogues, found that the whole added up to three figures—just.

The end of a farm; the extinction of a homestead is a spectacle melancholy enough, but even the farmers who sold and who bought the relics may have found compensation in the essential beauty of the scene. The belt of woodland had begun to take on its autumn colours, and it is full of the reddest of trees, the wild cherry. The sun was reflected on the leaves of an immense elm in the centre of the farm, a tree especially beloved of owls, now waiting there for the sun to set completely. The grass-ridged lane that is the only approach to the homestead disappears into a common clothed in juniper, gorse,

bracken, blackberry and raspberry, and the finest grasses. Faint and far off the returning partridges called on their way to "jug" in the rough grass. The sale of the farm was a little event hardly disturbing a scene of continuous and most English beauty.

6.

There is a vale in Devon lovelier "than all the valleys of Ionian hills," though not many people see it or even know of it; for in that delectable country the dips are often so sudden and unexpected that they seem to be incidents of the country like its birds and beasts. You could shoot a rifle, you could almost shoot an arrow, from the wood that clothes the western side to the grove and house that adorn the eastern: strange legends are preserved of the wreckers and robbers who long since lay hid in this surprising pucker in the landscape. The house is Georgian, but the outhouses are several centuries older, and the stock within look out between the stone tracery of what was once, no doubt, a private chapel. Some day the valley will be put into the possession of the National Trust; and since England is full of places that seem to their owners the most desirable in the world, this beneficent Trust promises to be one of the greatest of all landowners.

Mere beauty is perhaps enough, but a "place within the meaning of the act," the act of bestowal, should have some special distinction. The distinction of this is, to my taste, its ravens and its buzzards, though other distinction would be found by archaeologists. One wood is "Chapel Wood," and you may emphasise which word of the two you will. Every year the buzzards build there and every year the ravens, sometimes one pair of each,

sometimes two. Both species are either rock builders or tree builders. One of the most beautifully photographed buzzards' nests that ever I saw was on the cliffs near the mouth of the Dart, and no raven's nest stays more saliently on the mind's eye than one built on a ledge of very steep cliff near Aberystwyth. As you looked over the edge down on the fledged young their feathers gleamed in the sun almost like the mica in the granite cliffs. They were subdued to the nature of the home they lived in. But both birds are as fond of trees, if they are big and strong and out of the hurly-burly; and in this valley they have plenty to pick from.

Now, one of the common sights that never grows stale, flat, or unprofitable is the flight of a bird: the slow sail of the gull, the muscular dash of a pigeon, the smooth speed of the swallow's circles, the wayward patrol of the peewit, the sudden twists and swerves of turtle-dove or of golden plover, the hover and stoop of the kestrel, the fountain-like dance of the grey wagtail or fly-catcher, the massed manœuvres of starlings, the slow beat of the heron that can yet climb in rivalry with the peregrine, the purposeful spearhead of migrating duck or geese, the spiral of the lark, the sharply angled ascent and fall of the tree pipit—all flight is a luxury to the beholder; but you will see certain qualities not perceptible elsewhere if you frequent a valley where raven and buzzard live in close neighbourhood.

The buzzard though the biggest of our hawks, indeed almost an eagle, is a peaceable bird enough. Even in pursuit of his natural prey, he does not kill near his own home. He is inquisitive, and will spiral for hours over busy city scenes (as I have seen in at least three parts of the world), but the pair fly straight and far from their home and interfere with no other bird. The raven is

more pugnacious. In this valley it is a common experience to see the ravens mobbing the buzzards if they approach at all near to the nesting tree; and while so engaged they prove the supreme control of their flight. The crow tribe is in some regards much the best of all in flight. The birds can travel great distances in the straightest line, as our proverbs recognise; and one of the stranger sights is the evening's collection of great colonies to favourite roosting woods; but it is when they decide to attack that they are incomparable. I saw, also in the West, a smallholder's sheepdog driving in some pigs, who much resented the attention. They turned savagely, and bit at the young collie, who laughed in their face, so lightly, so quickly, could he leap and turn that he could assault the unfortunate pig at any point and any moment he wished, without the suspicion of a fear of reprisals. The ravens are not less superior to the buzzards. They have the tumbling trick as strongly as Sir Andrew Aguecheek himself. A bat can scarcely turn so quickly. The buzzards, with a fine philosophy, being wiser than the pigs, make off with what dignity they can muster; the raven is too good for them altogether.

Do ravens and buzzards nest side by side in other groves in other valleys, where history and natural history so sweetly combine into a most English picture? Perhaps they do, for both sorts of bird continue to increase. They nest and breed and live long lives. But such a place is worth possession by the nation, so that the association may be ensured "in perpetuity," if such may be. We need not wait for danger to arrive; and it must be confessed that danger is remote: the place and its neighbourhood remain unspotted from the world, in spite of the fond enmity of the innumerable friends of Devon.

NOVEMBER

Ploughman and Hedger—The Shire of Shires—From Ear to Blade—Migrant Robins—The Crown of Autumn—A Garden Pond—Leaf and Hibernation

Ι.

HE county is freely dotted with "Hoos" and "Ends," and past many of them run roads that are half public, half private. You are not quite sure which: but where they are gated the gates stand open, and all who will may taste at least the external beauty in which these gracious country houses are set. went through one of these gates, much too rusty and rickety to be shut, even in the unlikely event of its owner proving cantankerous, we found one side of the road lined with recumbent mangolds and swedes. A stackyard had become a motor park. There was a going to and fro of labourers and farmers, and less useful visitors, including hounds and horses and pink coats. They had come solely to decorate the occasion; and the most virulent humanitarian would hardly deny the decorative value of the waving sterns and rhythmic dance of the "cat feet." The annual ploughing and hedging and ditching competition encouraged by the County Agricultural Institute was in full swing. It is one of the too rare occasions on which the farmers share fully in the common life of the village. On this occasion they certainly pulled their full weight, lectured charmingly to the village school children and did more in one day to impart a rural bias than all the lessons designed to that end. They

organised and supervised with native skill, and the luncheon spread by one of them in an old tithe barn bore full witness to an old time hospitality.

"Speed the plough"; and in one sense the tractor has speeded it five times over. In the deeper sense no one can utter the wish with the due fervour before he has watched the plough in action in dry weather and wet, on light soil and heavy soil, on grass and on tilth. This great field when we entered it by an unhedged road was rough with stubble and weed and relic fodder crops. When we left it was a uniform rich brown, more neatly ridged than the bark of straight young elm or the tiles of a tidy roof, save for narrow pathways between the long rectangles on which the competitors had been exercising their skill. Two small London boys, showing scuts like rabbits in their ragged trousers, ran up and down inspecting the work. One had said, "I want to be a plougher," and a very kindly farmer—he lives on a farm made famous by Elia-had been instructing the two on the signs and proofs of good ploughing, and had told them to make up their minds about the winning plot. They plumped—rightly and with decision—for No. 27. The wake of one two-furrowed plough showed pairs of lines: that was all wrong. One plough had wobbled and left what is known to the craft as a pig's trough; and it was peculiarly difficult not to leave such scars for the pan beneath was hard and the soil above it light, and the ploughman complained that the land "swam," a word as appropriate and racy as most country phrases belonging to the soil. The plough has changed little in the great essentials, the coulter cuts and the mouldingboard turns at a curve more constant than the screw of a steamer; the simple (but not easy) devices for "belting" the depth remain much the same; but the newer

tractor-drawn plough excels in an almost automatic method of converting the plough to a trackless sledge. The common ploughman must heave with some exercise of force, and it is therefore scarcely possible to end or begin the ploughing with quite geometric precision. So the tractor-ploughed strips excelled the horse-ploughed in the straightness of the crossline at the headlands. Only the winner had rivalled or excelled the tractors (with whom he was not in competition) in the precision of that line. Mr. Euclid would have passed his diagram; and the folds of earth overlapping up to the ridged centre were as even as the cloth rolls folded by a master tailor. Not a speck of yellow stubble or green appeared. It would all moulder into fertility in autumnal mists and winter rain. The two wise old Shire horses needed scarcely a word, much less a tug, from either of the two ropes that were their only rein. One stepped along the furrow without fraying the edge and the other along the flat in as straight a line as their driver could desire; and stopped and side-stepped more in obedience to their own sense of the job than the orders of their officer.

It was a short march to the hedge, untouched for a generation, where the hedgers and ditchers were at work, while a farmer of fine energy and a native gift of clear description explained—both to a group of school-children and a young M.F.H.—the true inwardness of the art. We all know what a well-laid hedge looks like—the top neat and firm as a good ploughman's line, and made as a rule with long withes of hazel wattled together. These are the "headers," and they are plaited round the upright stakes, cut at level height with one neat diagonal blow. Yet the finer points of the craft lie not in the wattling or the uprights, but in the laying. The heavier trunks of the old hedge must be so cut that they will



J. Dixon-Sc

bend to an angle of 45 degrees, and, in spite of the wound, keep alive and put out greenery in spring, until such time as the old pruned stools send up a sheaf of new shoots hedge-high. You could see the deep disappointment on the face of the oldest and perhaps the best of the hedgers when a very old thorn trunk broke off through the brittleness of age when bent over. Every man in the competition had made his own wooden mallet for hammering in the stakes; and every one, known in the district as a hedge Molly, was made of wych elm, cut in one solid piece with knots on either side the central point of impact. Some were ingeniously grooved to catch and hold the top of the hammered stake. The finished hedge was trimmed, not with a sickle, for the word is scarcely known, but a bagging or danging hook. The whole scene was racy of the country, in aspect as in speech; and the new ambition of the small London boys is perhaps sufficient assurance that it was successful in imparting the rural bias that is the despair of our educational authorities.

2.

Were there voting for the best county in England, many would plump for Berkshire, rather than any of the established leaders, on account of its variety. You have the Thames, a river, glorious, if small, even when compared with the Danube or the Mississippi; and its richest reach is in Berkshire. You have—at Aldermaston—the edge of Old Windsor Forest, where the girth of ancestral oaks proclaims an antiquity comparable with the propped giants of Hatfield Park. And it may be claimed for this village that it has as great a variety of attraction as is found in any county; many beautiful

houses, as engaging a slope to the hill as Broadway or Burford, a glorious Park and, below, a stream rarely rich in bird, fish and insect life. The grasshopper warblers mimic the reels of busy fishermen and the dragonflies are as numerous as moths in a hayfield. You have the Kennet and the Pang, whose bubbling springs look to their visitors' pleasure, the lazy trout lying over the fount; and then in spring the rich fish break the sleepy ripple of the song of the grasshopper warbler. Last, but not least, come the Downs; and along the top of them, over one delectable reach, runs "the Fair Mile," a place that deserves its description as surely as Tennyson's goddesses, "divinely tall and most divinely fair."

Such a green road on the ridge of the Down is all the more delectable for being no thoroughfare. When you walk along it you practise to perfection "the delicate and gentle art, of never getting there." Up to its neighbourhood lead deep lanes of chalk and turf that serve, or should serve, only the farmers, though on some days the squeak and rattle and alarm of motor-cycles shatter the silence with the venom of a war explosive, and the machine jumps the tracks like a maddened animal from some alien world. The apostles of speed select a place as proper for quiet contemplation as a nunnery, and, but for them, the holy fane is "quiet as a nun, breathless with adoration." The proper denizens are in alarm. The flocks of mingled finches swing off to other acres. The timid hares, with the backward-looking eye, leave their forms, and even an alert weasel scarcely crosses the lane in safety. But even of the existence of finches, hares, and weasels, and such "plaguey wildfowl," the cyclist is doubtless unaware. He is racing.

I walked this green road, these Downs, on a day of light mist and found their singular attraction hardly less

potent than when the wide view rewards your climb. The chalk road we walked up should be famous among naturalists, for there was found a nest of the twite, which rarely deigns to build so far to the South. There is some quality in the place that peculiarly attracts the race of finches. They rise in clouds from some of the stackyards with that sudden unanimity which has persuaded some observers that they possess a sixth sense. The flock, however many sorts be mixed together, knows its mind as if it had one mind and a hundred wings move as by a single impulse. The finch is as native to the slope of the down as the English juniper which seeds freely in some of the hollows, and of all the bushes these are preferred as a nesting place by the brown linnet, which has always a certain affinity with the finches. How often linnets' and greenfinches' nests are built side by side in our gardens! In the mist these juniper bushes seemed almost like a company of animals coming down the hollow to meet you. As we stood looking at them, while the red and yellow leaves fell about us with the heavy deliberation belonging to a day of mist, we felt quite sure that they moved.

A certain change has come over these primeval Downs of late. Plantations of fir and pine and larch have been introduced and have flourished. If you see one of these upon the sky line it is hardly less forbidding than the motor-cycle, for the clean line of the Down exercises a fascination that no one, not even Dr. Vaughan Cornish, has quite explained but no lover of scenery will attempt to deny. Here, as on the Stonehenge plateau, a clump of beech, native to the chalk ridge, is a tower to the building, magnificent in colour as in form. The alien larch and pine are more like a slate pinnacle added to a Gothic building. Nevertheless, here and there the pinewood

has enhanced the Downs as, to my thinking, do the ricks and stacks and farm buildings and even the chalk roads. Where these woods are nursed in else barren hollows they provide warm harbourage to all manner of animals, both four-legged and two-legged; but it needs a real lover of what is English in England to plant them right. After all, the comely hedgerows, now both crimson and orange with berries of quick and spindle (a bush much at home on the chalk), were set there by man, not so very long ago. The hedges enrich the approaches, as the homesteads the hollows and the ploughs both the upper and lower slopes. A snug plantation, even of larch and Douglas fir, has its place along with them. The yellow and the green made a friendly association as you came upon them surprisingly in the mist, though their offence would be rank if they dared to break the sweep of the ridge's line. It is no offence to the wheatear, nesting in the rabbit scoops, or the finch in the bushes, that tit and wryneck find a home in a neighbour hollow.

3.

The field was golden in August with a crop of wheat almost perfect in ear, though not otherwise heavy, and only disappointing to the farmer and villager because the last patch to be reaped was empty of rabbits, which fly much sooner from the noisy tractor than the horse-drawn reaper. The Bank holiday meet of foxhounds before the hospitable doors of the country house is not a more popular event than the spectacle of the sauve qui peut from the last rectangle of standing corn. There was no long drawn out sweetness about the sunny harvest. Things move quickly in these days. The tied sheafs were carried on the day they were expelled from the

cutter-and-binder. We were vouchsafed no aisles of stooks, and the waiting sparrows were balked of weeks of easy feeding. The partridge coveys, which always delight in the field, had scarcely more than a week or two to enjoy the stubble and the scattered grain; for back came the tractor in a trice, this time with a three-furrow plough in its wake; and in place of the yellow straw, which offered good walking and even motoring of a new sort, we had to be content with "the good gigantic smile of the brown, old earth." That, too, is now hidden. Blades of corn, three inches in length and high enough to filter the sunlight, run in straight lines over the whole of the thirty acres. So are we—

hurled From change to change unceasingly, Our souls' wings never furled.

If one may quote half-forgotten Browning, that "born sloven," as a later critic says, twice within a few lines.

England without stooks and without stubbles is a new island; but the old charm survives. Yet the changes are so quick in some years that we feel scarcely at home. The countryside has been a "Movie," a film run off rather too rapidly for the observer, though not for the farmer. And what a tribute has been paid to the English clime! This new grain crop, that makes a sheet of ruled foolscap of the brown field, strengthens its roots and hold on the ground, till it is proof, or nearly proof, against frost and wind and water-spout. It is already, as farmers say, "a good plant," and to continue their fine idiom the land is "in good heart." It is also "clean." A shallow cultivator pulled out the twitch, couch, quitch, stroll or quickens grass, which was burnt to death on light soils by the sole agency of the sun without interven-

tion of the field bonfire. Incidentally, the evil itself is a sort of wheat, a "triticum," though "repens." The land is well cleaned and early sown; and because the plant is in the ground much longer on English acres than in less happier lands—indeed, it will probably see no fewer than eleven months out of the twelve—it is capable of bearing a heavier weight of grain. The autumnal changes have been breathless, but we shall look over these green and level lines throughout the winter and the spring, and the lower the sun the lovelier they look. The larks will scrabble about them; the starlings will dibble holes alongside them, as is their strange and not easily explicable habit; the partridges will delicately nibble off the tips of the blades just here and there, and the rooks, if they are too many, will eat off the bleached shoots in search for the exhausted seed. The farmer may shut the gate and go about other work which will give him more trouble and less pleasure though bigger returns than this self-rearing grain.

A similar field near the sea in East Anglia has astonished even the all-experienced native by its attraction for that ardent follower of the plough, the British seagull. The furrow immediately behind the plough has been continuously white as the crest of a breaking wave; and the birds have been more various in species than usual as well as more multitudinous—blackheaded, herring gull, even an occasional common gull, so called, and lesser black-back. The clamour is more noisy than the breaking wave. Here and there a jackdaw, a rook, and a starling or two take part in the pursuit of the plough, but the number and noise of the gulls soon rout them. The birds must do a great service to the farmer, though in their diet is perhaps a greater number of the beneficent worm than of any harmful grub. Happily worms are

plentiful enough, and the superfluity may be spared without a qualm. Some of the gulls after all are land-birds rather than sea-birds. The black-headed species nest inland, preferably in grass, love London better than the seaside, and are much more skilful in earning a livelihood by the river or on the field than anywhere about the sea. They follow the plough for grubs as the wagtails follow the haycutter for fly and moth.

The quick growing of wheat sown early in the year is usual, though some seasons will accelerate it. The soil is most alive, and in its most active state of ferment, in September. Its population of invisible life is thus greatest; and thanks to their energy, then does the turned-in straw most quickly moulder into fertility, and the seed most surely sprout. How often we say, was ever an autumn more like spring? Alongside the thirty-acre field of springing wheat is a garden bed where grew a group of perennial larkspurs (known by a too Latin generation as delphiniums). You can scarcely distinguish the bed from the surrounding grass, so thick is the surface with sprouted seedlings. The wheatfield, however well-cleaned by man and bird, is hardly a better witness to the fertility of autumn. Every other weedseed seems to have germinated; but the wheat had the start of it, and though it is Eastern, and an alien plant, that would vanish within a few years if left to its own devices, in this Northern island, will out-top, if not vanquish, the native herbs, or so we may hope. There will be exceptions. The pads of knotgrass will prevail on some of the light soils of Norfolk, and twitch (like the African Fuzzy-wuzzy) is "generally shamming when it's dead"; but though pink convolvulus and yellow charlock and red poppy and purple thistle and blue cornflower will appear amongst the wheat of autumn next,

and the green weed blades will wet the wings of young partridges running down the else-open corridors of upright straw, the wheat will win, even if it grow "winter proud," and be grazed by sheep (as well as partridges) to suppress its excess of vigour.

4.

This autumn observers on the coast of Norfolk had an experience entirely new in their records. One morning the coast was found to be populous with robins. They were in hundreds, perhaps thousands, but not strictly speaking in flocks. The robin is a solitary bird, singularly ungregarious, and all this host was composed of birds that had been influenced, not by any herd instinct, not by a mutual, but by a common stimulus. The poor things were in great distress, and a large number died soon after they reached our shores. Little, emaciated bodies were picked up on the seashore and just inland; and the living birds were tame with the tameness of weakness and fatigue rather than native courage. One day the live birds were found in every other tussock and bush. The next day they were all gone. They had struggled southwards and inland, leaving a trail of those who had fallen out. The specialists at South Kensington averred that the bodies belonged to the Continental variety which differs slightly—it seems to most of us very slightly—in the colour of the plumage.

This migration of robins, coming south-west out of Scandinavia across the North Sea, was unprecedented, at any rate in its suddenness, completeness, and earliness of date; but it was also characteristic of the region. For certain sights—and those even of the most curious in our natural history—you must frequent the East Coast, which

is always, whatever the season, supreme or unique in autumn and early winter. The South and West excel in spring, especially in the eyes of the bird-watcher; for the first line of migration for the early arrivals—since the first wheatears and first swallows pass through Hampshire and Somerset to Gloucester and Cheshire. That is one of the favourite routes for our summer visitors. The winter visitors, or some classes of them, have an almost exclusive preference for the East Coast. Every year Norfolk observers see hordes of larks, crows, rooks, starlings, plover, fieldfare, redwing and many others descend on the coast or fly along it on the last stage of their journey across the North Sea. On occasion you may find the little golden-crested wrens swarming like summer bees and so tired that they pay little or no attention to man or beast. The woods are suddenly populous with woodcock and the marshes with snipe. Many of these birds become more characteristic of the West, especially the woodcock and the wrens, which for myself I especially associate with a Westmorland garden. They travel west; but this strange spectacle of utterly tired birds dropping near the shore is characteristic of our East Coast. The robins arrived on the wings of a north-east wind, which they had chosen as a woodcock is said to choose the full moon; but if it could help them over the water it could not save them from fatal weariness.

The host of robins, which we regard as one of the least migratory as well as the least gregarious of birds, would seem to indicate that the movements of birds are frequently not according to rule, so far as any rules can be deduced. Did not Mr. Julian Huxley the other day hear a Redshank—that most characteristic of the wading birds—flying over his London house. The tribe had recently quite disappeared from its breeding haunts on the East

Coast; but who would have suspected that its migratory route would have passed over London? The waders perhaps, more distinctly than other birds, move on the impulse of weather or the prognostic of weather, and they drift southwards rather than leap in definite bouts, though the hours of their disappearance from Scolt Head or Hickling Broad, or where not, can be foretold with some degree of accuracy. A summer may stay with us long, and its sweetness be drawn out indefinitely even into November; yet the flight from the North is early, and perhaps numerous beyond the usual. It is many years since I saw so many fieldfares in early November. Some of the robins appeared in September, an inexplicable phenomenon. It is, of course, difficult, not to say impossible, to reckon the hosts of larks and starlings or even crows; but they are all multitudinous, and the winter larks are in numbers so great as to do serious damage to the small seeds on the Norfolk stubbles.

The hardest part of the migration puzzle is, perhaps, the movement of species that both nest in England and come to England for the winter. Does anyone know in the very least how far our blackbirds or thrushes or, if they must be now included, our robins are swelled by winter immigrants? We mark the arrival of sudden hosts of pigeons and starlings (slightly varying from our own birds in plumage) and of the corvine tribe and of plover, both green and golden; but evidence appears to increase, if slowly, that much smaller detachments of our common native birds cross and recross the narrow and shallow seas of our south and east coasts, not regularly, but oddly and eccentrically in response rather to accidental variations of weather than to any deep-rooted instinct, such as drives the swallow and cuckoo, in blind obedience to the tide of life that rises within its own being,

5.

Where is the glory of autumn colouring found in its highest power? This is one of the townsman's commonest queries at one date, as "when can we most easily hear the nightingale" at another date. The question suggests that we have quite escaped from the old gloomy view that autumn is a time and a scene of melancholy, when "after many a summer dies the swan." The vellow leaf (on the elm at any rate) is not in our view sere. It is almost an apotheosis, when the spring and the summer flame before they die or glow before they grow ashy grey. Throughout Europe and North America, autumn crowns the year. The phrase Indian summer comes, of course, from North America, and in some parts of that continent some weeks of the autumn are quite supreme in the records of the year. In the north-east the winter is hard, the spring arrives slowly and muddily, and the frost has still refused to leave the ground in May. With summer come the sandflies and mosquitoes, autumn alone has all the virtues; every conceivable tint of red clothes the ground. The golden rod flowers among the coloured currants. The Canadian maple is a pillar of fire by day. The air is warm and soft, but clear. The most distinctive animal of the country, the caribou, decides that it is spring, and a close time is interpolated. The sumach is to the Near East what the maple is to Canada, and its more brilliant reds are often set in a background of the sober colours that we know in England.

We have in England no autumnal scenes quite so brilliant as we should find if we travelled to Grand Falls or to the Iron Gates. Our splendours of the fall are in another manner. You would not compare a goldfinch with a parrot, nor would you deny the delight of the smaller and less startling, because it missed the flash of the bigger bird. On the eve of the first frost, unmistakably beaconed from the sky, though not yet felt, I walked along a green path by the side of a hedgerow joining two spinneys. The clouds in the west draped the setting sun in hues that suggested the autumn about us.

Its edges foamed with amethyst and rose
Withers once more the old blue flower of day,
There where the ether like a diamond glows,
Its petals fade away.

And its light was caught in the mesh of the hedgerow leaves coloured like itself. Someone said: "This is the best moment of the year." In ten days the leaves will have fallen and the cold will come, and the scroll of winter will be written in the hieroglyphic of bare boughs. Such a sunset on such an evening catching the prism of the hedge at such an angle and such a moment was an association we should not see again for a twelvemonth at least, and perhaps had not seen throughout one of the best springs and summers in the records.

That hedge at that moment was the best autumn Mecca; and if we must compare splendours, the English hedge has peculiar virtues not shared by the red maple and the sumach or the scenes in which they flourish. This particular hedge was richer than most in the bush that we call dogwood, a word that has a completely different meaning in Canada, where both dogwood and juniper indicate a forest tree; and the distinction is characteristic of the nature of the two countries. The scale here is smaller, more intimate, more nicely graded. Purple in sheen and leaf the dogwood occupied the lower half of

the hedge, as the glowing ashes fill the base of a fire. The light flames were represented by maple—which in England is usually yellow rather than red—and spindle, the most variously coloured of all both in leaf and berry—and thorn and hazel and hornbeam. Among these struggled old man's beard in one reach, briar in another, and an occasional holly divided the hedge into compartments with its stiff pillars of green, this year, wherever female trees prevail, singularly rich in berries. Warm and snug rabbit forms could be found in the tall dry grasses that hid the hedgerow ditch. You might walk through the magnificence of wooded scenes and be unaware that any living thing existed there. Here the finches flitted in front of you, the grass and hedge rustled with hidden movement. The place was as friendly as it was lonely. The even fell peacefully "like tired eyelids upon tired eyes," but more merrily than in Tennyson's lotus land.

Not so far from this path are some old gravel pits that are too much like a deserted mining camp to be attractive; but the edges are colonised by oaks, thorns, and clematis; and in autumn the place is worth a pilgrimage in spite of the starveling soil and barren pits; some of the thorns are not less brilliant than a Canadian maple in Canada; and you come to see that the glory of a tree in one place is no measure of its glory in another. The may-trees in the parks may be rich in berries—and haws in great purple clusters are a normal glory—but you must go to a hard gravelly soil to see the capacity of the tree for assuming colour. I have seen nothing anywhere to approach the range of colour in one or two of these thorns. Isolated trees or clumps often seem to extract admiration from their isolation. What could be lovelier than the trees that follow the little trout streams in the valleys by Salisbury? How different

from the stark and bare downs just above them! But what you remember is one clump of beech trees on the edge of the Stonehenge plateau. It overtops, at least in your memory, all the beech woods that represent autumn to many of us at Burnham or High Wycombe.

We cannot boast quite the bright variety of the berried plants that cover the ground in parts of Newfoundland; but autumn colours are mostly ground colours in some of the hills and steep places of western England and Wales. At a distance you may be excused for wondering whether the brightness that comes from the slopes is bracken or gorse, so full of colour is the faded fern. Bracken adds much to the autumn scene on Surrey commons, in Berkshire woods, and along Devon promontories and on Welsh hillsides. The West is peculiarly rich in the Cymric variety of gorse which flowers not in March but in October, and the bracken and this gorse in partnership give the West its claim to an autumnal brightness quite its own. We all like our home. For some it is difficult to acknowledge that the Midland hedgerow has any close rival.

6.

About twenty-six miles north of London an old cottage stands in the midst of a wide orchard and meadow. It is close to the road, and behind it are a congeries, as Carlyle used to say, of houses, some inhabited by London workers, though a part of the village retains its antique charm, where it is grouped about the Common. The cottage and its grounds nevertheless keep their rustic savour and are regarded by a great variety of birds and wild mammals as a sanctuary—have long been so regarded; but the dwellers there have only just come to

discover how popular and populous the garden is; or, perhaps, its popularity has suddenly increased. In any case the reason for the discovery or the increase is the same. A year ago a shallow pond was made on the little lawn; and the news of the welcome water on a hill top appears to have been broadcast. A rough record of the visitors seen at the pond during this summer and autumn is "a thing imagination boggles at."

Not all the visitors are English, and therein is a mystery. A tortoise was observed to be drinking. When sated it toddled off and was followed—across the little lawn, under the trees of a small orchard, across a bit of wood and a lawn beyond it, and then over a daffodil meadow to a hedge by a roadside, where all traces were lost. The distance was rather more than 200 yards, "as the crow flies," which, bating the speed, is very much the same as "how the tortoise walks." How did the tortoise, wherever it sprang from, discover the pond at such a distance from its putative home? Another and more frequent visitor is a hedgehog, who has not yet gone into winter quarters. Perhaps the pond will help a question that some unorthodox naturalists have begun to ask: "How far do hedgehogs relapse into winter sleep?"

Now, a friend has been imparting to me the tale of another hedgehog, the very first—for he does not pretend to be a naturalist—whose intimate acquaintance he has made. This friendly creature discovered that the kitchen is a place where food abounds; and adopted the habit of coming to call every night. Its semi-natural instinct prevented a daytime call, and when there was not always anyone in attendance at night it signified its presence by knocking at the scullery door. Its call has now become regular; and at 9.45 p.m. each night it appears, and is admitted, and as a rule regaled with bread and milk on

the kitchen table. It is as tame as any dog, and though it cannot wag a tail, expresses pleasure at its kindly reception. The meal concluded, it took off to its other night-time occupations, and disappears into the night, no one knows where. What is certain is that, like the other hedgehog at the drinking pond, it has not yet retired into hibernation. These creatures of the night are, of course, very difficult to observe; but they are singularly punctual to their hours. There is, for example, a particular badger (living on the edge of a Herefordshire wood) which always emerges from its earth at 9.15 p.m. precisely. Its punctuality has enabled a local dweller, who has a genius for such observation, to exhibit the animal to friends who have not seen the animal in the wild.

The tortoise and the hedgehog who come to the garden drinking pond meet, as at an African jungle pond, very various boon companions. Rabbits come, and hares. Doubtless neither is a good gardener. The rabbit is inordinately fond of cabbage, and the hare of anything that looks at all like a carnation; but these rabbits and hares are more congenial than most of their tribe. The garden is cabbageless; and though there are carnations, the hares prefer to nibble a rock moss that flourishes there. It is regrettable, but true, that a grey squirrel who visits the pond is welcomed; and no crime or sin is set to his charge. He has not eaten peaches (as in other gardens) or plums; nor has he been observed to harry birds or their nests. Perhaps one reason is that wild hazel nuts are plenty. Many of the mammals are thirsty creatures. I know one garden pool that, unlike this, is deep and with overhanging sides, which proved fatal to a grey squirrel and a fox during one week, which was the peak of a spell of heat and drought. Ponds meant to be a lure to any sort of creature should be shelving and shallow.

A WEST COUNTRY VILLAGE

Among the thirstiest of creatures are bees. In the spring of this year, because the bullfinches were eating the buds (especially of gooseberry and, oddly enough, of Forsythia), the gardener put out little saucers of water. They were ringed every day with hive-bees drinking greedily. This garden pond has attracted, as you would expect, a number of the hymenopterous tribe, especially queens, and among them a hornet or two, an insect that had not before been seen in the garden or, so far as is known, in the neighbourhood, for its species grows rarer and rarer. A good entomologist can draw bees and wasps, real or bogus flies, butterflies and hover-flies, beetles and even spiders, by providing congenial flowers, such as Buddleia variabilis, Sedum spectabile, mauve michaelmas daisies, the dusky geranium, tobacco plant, valerian, and ivy; but perhaps some even of the specialists forget how regular an attraction is just water.

The pond was meant for birds. The tortoise, squirrel, hedgehog, hares, rabbits, hornets, flies and butterflies, are in the nature of an unearned or, at any rate, unpremeditated increment. And the birds have gathered to their proper pond, daily and in numbers, as was confidently expected, for the garden is a favourite of birds, as, indeed, is the house, where robins, at any rate, make themselves thoroughly at home, especially at breakfast time. Yet the birds, too, have given surprises. The common or garden birds—hedge-sparrows, bullfinches, starlings, thrushes, and the rest come, of course, both to drink and bathe; and most people with bird-tables and the like think in terms of the smaller birds as sportsmen and travellers think in terms of big birds; and many more big birds than were expected have enjoyed their dip on the lawn—pigeons, jays, and even magpies are duly chronicled in the Census of the Pond.

7.

That engaging but furtive beast the hedgehog, dowered with an ideally descriptive name, has justified it. It has rootled in the mud and leaves at the foot of the hedge and found a hole, a winter sty. Into this it has disappeared, and may not appear again till it desires young leaves in lieu of old. It is one of the many lovers of fallen leaves. Like the short-tailed field vole that Robert Burns, with most other people, calls a mouse, it provides itself with a "wee bit heap o' leaves and stibble"; and by their aid hopes, if all goes well, to

Thole the winter's sleety dribble And cranreuch cauld.

It has few enemies. Mr. Hearn has reported that the adder will eat very young hedgehogs, or try to, and in his tale the adder was killed by the mother hedgehog. The dog and the fox are its worst enemies; and there is something about the smell of the hedgehog that infuriates a dog, at any rate, in my experience, the spaniel, the fox terrier, and, surprisingly, the Alsatian. Certainly one very silent spaniel and one quite silent Alsatian bark furiously only when they have found one of the retreats of this early hibernator.

Most of us delight in the season of "the Fall" because of the tawny colour of the leaves that still hang on the the trees. They hang long in some autumns, against all expectation. In certain places November 19, which is about the end of St. Martin's Summer, is taken as the authentic date for the final baring of the boughs. Thereafter the season is open, not close, in every sense of the word; and so far as the almanac is regular, this particular date serves well enough as a remembrancer. It is a sign of health for trees to lose their leaf then. When the

beech and hornbeam and oak cling to the faded leaf throughout the winter months, they have usually been compelled to that habit by artificial treatment or morbid health. It is the clipped and bullied hedge that mimics the evergreen. Half the charm and fertility of our temperate clime lies in the fall of the leaf, as many animals know.

It has been said of the oak that it supports more various life than any other tree. Among its commonest guests are flies that sting its leaves, to the end of making a nest for the eggs, and if you take a score of oak leaves you may find ten of them decorated with little discs. They represent a harvest. At this season you will find among the circles of leaves beneath the oaks more birds than at any time, and, indeed, more other animals. The pheasants and the pigs (especially in the New Forest) are the biggest and most obvious; and it is generally supposed that the pheasants scratch for the same reason that the pigs rootle; they seek acorns; and the number they and the pigeons can accommodate in their distended crops is scarcely credible; but even these big birds seek the food on the leaf as well as the fruit. And those quaint discs on the back of the oak leaves (one of the greatest curiosities of natural history) will harbour the eggs till spring comes; and, indeed, the harvest of the leaves is very much greater than the harvest of the acorns.

A leaf-strewn surface is a melancholy site, especially beneath an ash, whose leaves fall green, a loss that would damage the vitality of other more economical trees. A musty charnel scent hangs in the mist, of the earth earthy. Earthworms, never so active as now, pull into their subterranean holes more leaves than all the voles and hedgehogs, and block the openings with the stalks. We think of decay: "The woods decay, the woods decay and fall," but if you wish to see the full brightness

of fallen leaves go to a wood where great clean-stemmed beech trees build circular temples round the central pillar and beneath the fretted roof. The floor is as red almost as a seaside pool where the anemones and the coral seaweeds flourish. The leaves, more resistant to weather and time than any other, are almost metallic: they tinkle before your feet; like Virgil's golden bough,

Et similis frondescit virga metallo.

I have seen a cock pheasant, brilliant in plumage as a peacock, crouch into such leaves and vanish: the leaves gleamed with a responsive and protective colour. These glowing leaves are a counterpane beneath which all sorts of life find snug sleeping. Mice have nests and snug runs. There are little stores of nutty food. Blackbirds and tits in mid-winter save their starved lives by ferreting in the storehouse and will scatter the leaves with as much fury as an eddy of wind and make such a clatter that you may stand over them almost and discover what booty they seek. They will throw up old leaves, completely perished except for the ribs; and you may admire the vertebrate pattern as you admire the filigree mullions of the boughs above you. Winter is as rich with form as summer with colour.

If we must compare, the beech is the loveliest of all leaves all through the year, during its time of crumpled vernation, when the sating nap gives place to shining smoothness, when the dark green flows back to the acquisitive branch and leaves the lime-made colours visible. To-day, while yet St. Martin reigns, even the cherry hedges are less splendid than arches of beech over some of our roads and rides. The leaves part with their summer green reluctantly; and the relic verdancy gives a light and a glow to the canopy that no other tree can compass.

DECEMBER

A Village Christmas—Wild Wales—Winter Feeding Habits
—Horse and Hound—A Goose Sanctuary—Fifty and Sixty
Flowers

Ι.

EARLY all the village says with regret that the weather is not seasonable; and the faith is almost universal that seasonable weather is healthy weather. Christmas appetites are sharper if the ground is white; and the close association of health and appetite is unquestioned. It is a tradition that Christmas always used to be white, and perhaps no single day of weather has remained so firm in tradition as Christmas Eve seventy-four years ago-when the owner of the newspaper shop was nineteen—when the Ouse froze in the night, and fenmen went to the Christmas services on their skates. Yet some few of the weaker vessels confess to a liking for the mild, open weather. It shortens the winter so; and the old lady who stands for hours with one foot on the pavement and one on the floor of her sitting-room, a foot lower in level, explains the misery of a long winter: she has only one set of winter underwear; and cannot change till the warm weather comes round again. It is a grim waiting.

For the rest of the village is not so greatly altered as you might fear. The blacksmith is a born artist, even better at his craft, I suspect, than his forbears, who fulfilled the almost forgotten task of making shoes for heavy horses. The river still winds its sluggish way

past an acre or two of half-year land, though few commoners use its benefits. The church tower still rises preeminent from the midst of the nave, and the bellringers, stripped of their coats, sound the Christmas peal with rhythmic vigour; and coat themselves and fix the ropes tidily against the pillars when the bells "fall" and cease. Many changes there are affecting for the worse the several senses—of nose and eye and ear; but the village—quoted the other day as one of the best near London—remains an English village, and as such not only gracious in itself where smithy and mill and cottage and shop and larger houses consent to a mutual relation with hill and tree and river; but a social unit as little self-conscious as the uncoated bell-ringers and happy in its own inequalities.

Roundabout the village flourishes in great quantity that best of winter trees, the holly. By the side of one narrow road is a real forest tree, no hedge bush, with as round and bright a trunk as a big beech in Buckinghamshire, and being a male holly it is not threatened by the knives and saws which have accompanied some lorry-drivers from London. Little hollies and scrub oaks spring up even ont he wide open commons, and if you will you may dig up a score of seedlings under the low boughs of other trees that the birds have selected for their feeding ground. You would see that, as in the human inhabitants of this island, the female hollies, which, of course, alone bear berries, were in great excess. As with all the other kindly fruits of English earth, the suns of a dry summer compound so rich a sap, so precious a nectar, that it emerges not in leaf, but in flower. In 1934 the sun still shone when the time came for flower to set into fruit. Nor is that all. So open was the weather, so plentiful the earlier and sweeter berries

up North, as well as in the South, that the greedy field-fares quite failed to arrive, and blackbirds and thrushes all lived on other food. So many are the worms, and so near the surface, that the grass on the Common is as muddy with their casts almost as a tilth. So the sprigs of holly in church and cottage show coral rosettes of rare size and brilliance, its berries, as Tennyson says of the seeds of the dandelion, "all hitting," or at least all touching.

In one house in the village is a photograph, received from the West, of a holly in which a good bunch of mistletoe is growing, a rare and most seasonable conjunction, though not so rare, perhaps, as the mistletoe that I once saw growing on a standard rose. Round about the French village that I know best grow in long lines, both at the roads' edge and in groves about the stream, tall poplars decorated one after the other with bunches of mistletoe solid enough to be taken at a distance for the nests of rooks or dreys of squirrels. The country has no hollies, few hedges, and in all respects the French villages and the English are quite different in kind. The French are, perhaps, more like the Irish where the cutting of the boughs from the inexhaustible cruse of the poplar trunks is a village industry comparable with the cutting of peat in Ireland. But poplar, the worst of all woods for the home fire, needs even more drying than peat from the most marshy of hags. Native prejudice gives my suffrage to Huntingdon over the Aisne or Galway: but it would be an addition to many villages of my choice if the abundant wood about them were more freely turned to use as well as beauty. The two are not opposed, though a French farmer once said to me on his first visit to England, as he looked at tree and hedgerow: "Everything in England is for beauty." What he

meant to imply, I am not sure, but whether his phrase was more critical or complimentary, it conveyed at any rate a wistful wonder.

2.

In an old country—and England is often called The Old Country—the scene, even the landscape itself, is man-made, and therefore over the greater part of the land homely, with hamlets, hedges and homesteads, canals, roads, and tidy fields and woods; but there are a few scenes where the man-making has taken a different turn. The landscape has been re-made by the destruction of homes and farms and the slow accretion of centuries of kindly living. The most salient example is perhaps the Elan Valley, dammed by the City Fathers of Birmingham to supply their children with water. They have half created a scene that suggests primal wildness, if you can forget for a minute the metalled road that takes you to its heart.

"Wild" is almost a constant epithet of Wales; and well deserved. Wildness repossesses the country at the slightest excuse. I know an almost deserted garden near the Devil's Bridge which is almost elemental. Even the exotic rhododendrons have remembered their origin on the roof of the world, near the springs of the Brahmaputra. Nearby grows the Welsh poppy, known to few, and its rare seekers run the danger of the transplanters of edelweiss, as has been tragically proved. Though the refuse of mine and factory may destroy the salmon and vegetations in the rivers, and in some measure change their very nature, the hills and valleys keep their ancient wonder and some at least of their native fauna. The polecat, extinct elsewhere, hunts her prey in the woods

and even on the farms. The buzzard and the raven are common birds. You hear the hawks mew overhead, and the crows bark as freely as in the earliest days. So a motorist through the Elan Valley one day found himself faced by a buzzard perched on the hedge at a few yards' distance and refusing to move for the interloper; and ravens were in number.

When moving up the valley you pass the last of the immense dams that hold up the stream. The lake is set in a wilder scene than many of the great Canadian lakes; and appears to be as spacious. Fold upon fold of the hills unmasked by dwellings—though many are buried under the lake-enclose the scene, and you may walk and walk and easily lose your way before reaching any final summit. The storehouse of Manchester's water on the Lakes—a wonderful enough scene—is thickly afforested with trim pines and other conifers. Here such clothing has been quite omitted, and the landscape remains as it always was, except that the little rivers have risen against the immense masses of masonry till they have levelled their own valleys, buried village and homestead and created a lake that finally destroys whatever was domestic in the scene. The flood of Deucalion and Pyrrha, at least as imagined by Horace, was less complete:

Piscium genus summo adhaesit ulmo;

if there were no such trees in the valley, but the pike and other coarse fish swim not only where once the polecat ran, but where the Kite flew.

You will not find in the Elan Valley any such primal wildness as invests, for example, the Bird Rock, where in splendid isolation, but for no other reason than the force of a primeval habit, the cormorants gather to roost. Perhaps the seaside is wilder on such a space of marsh

and lake and rock as lies inland of Caern Cliddy in Pembrokeshire, from which you may flush a cloud of owls or snipe, or, in better weather, woodcock, and as evening sinks hear the wild note of scores of curlew and the croak of hundreds of coot. The greater hills and the great cliffs (such as form the southern end of Ramsey Island) are more tremendous; but in all our island few scenes are of more spacious loneliness than the lake inland of the third dam near the top of the Elan Valley. It is a world's wonder.

A good part of the country where England and Wales approach each other is very little frequented, and many parts of it are a naturalist's paradise. There are marshes where the black-headed gulls build in great colonies; there are moors where the grouse flourish and whereby the vanished kites, those great and splendid hawks, are trying to re-establish themselves. The buzzards are common, the merlin not rare at the right season; the curlews nest in many different regions, and even that utter rarity, the spotted crake, lived for a while. The landscape almost all the way has a glory of its own; yet in the several journeys I have taken, mostly for the sake of seeing birds, travelling from the Wye Valley near Hereford, westwards, I have marvelled at the rarity of visitors and the retention of its wildness by wide stretches of land that invite every sort of intrusion. By what a distance are these natural sanctuaries of the West separated from the actual sanctuaries of the East of England!

Both Norfolk and Pembrokeshire keep a good share of their native wildness; and yet if you would go forth to see the birds especially associated with wildness and water, you will best go at this season neither to Scolt Head nor the Elan Valley, but to the London reservoirs. Perhaps neither Birmingham nor Manchester has attracted

quite such vast flocks of widgeon, or of coot, or of gulls, or so large a variety of waterfowl as London. Though you have to go by a street and penetrate iron railings, and mount a bank dotted with artificial shrubs, you will see more wildfowl at Staines and at closer quarters than in the midst of the wildest, or tamest waters of the East or the West. The nature of the lure of London is not easily determined.

3.

The owner of the cottage, which has a tiny lawn in front of low windows, considers breakfast a failure if six varieties of bird do not share it. Six is the standard number. The food is not put on a table, but directly on the grass, without adjacent apparatus, so none of the usual favouritism to the tit tribe is vouchsafed, or indeed to birds, for the mice may come if they wish. The normal company at breakfast is that friendliest of garden birds which we libel with the name of sparrow (hedge), a cock chaffinch, blue tits and great tits, robins, and blackbirds. Those harpies, the starlings, do not appear. They are the despair of many who distribute daily largess. I saw them last week on a Wiltshire lawn, where bird feeding is practised on a very lavish scale. They have the habit of the dog, which is the habit of the wolf, and belongs to the herded or flocked animal. The starlings wolf their food. They exceed the speed limit. Their course is finished in at least a quarter of the time taken by birds of their own size, say, the blackbird, and in a tenth of the time occupied by dunnock or robin.

The feeding manners of starlings are a mystery in the field, as well as an offence in the garden. Again and again in a cornfield you will find on close inspection that

holes have been dibbled by their strong straight beak close alongside the blades of corn, though the blades themselves are not touched; and even when their "murmurations," as Juliana Berners used to say, are "murmurations," as Juliana Berners used to say, are excessive, they do very little harm to the crop, less, perhaps, than the flocks of larks. Both when found in big congregations are for the most part immigrant birds, hungry visitors from the north-east; and it is found that favourable winds encourage their journeyings. On the commons they will similarly dibble wide patches with holes that remain obvious, as if a spiked wheel had crossed the grass What do they probe for? They treat the hard ground very much as the snipe and waders treat the ooze, but cannot scoop and forage in the same way, and in any case the more succulent inhabitants are out of reach. The worms are more than two inches down out of reach. The worms are more than two inches down and there are no snails or slugs or any creepy-crawly creature. We have been told lately (by Mr. Oliver Elton) that every square foot, or as he probably means, every cubic foot of meadow soil contains a million creatures, mostly visible to the naked eye, but even if we believe this, next to none in winter is of a size to be perceived by the starling's touch. They are, however, great eaters of every sort of rubbish, and may squeeze the unessential good out of it as a duck sorts the water and the weed and the ooze.

Let the starling be. The gardener's only desire is to get rid of him, a thing impossible of accomplishment, though their visits are capricious. The classical example of such caprice was noted at the Whipsnade Zoo when they occupied some 70 per cent. of the nesting boxes the first year, to the despair of the keeper of the sanctuary, but have not repeated their descent since. To return to the cottage—the only birds that are attracted under the roof

are two cock robins. One enters daily, and as soon as the window is opened. The rather less punctual and courageous bird is chased away when he dares to follow. Now the robin, being omnivorous, is an easy bird to feed, but his passion is for fat in the form of butter. That is the food that will bring him to the breakfast table and within the house. He will eat porridge, a food that most birds avoid as being sticky on the beak, though most birds relish it in the dry and powdery state. He will eat half-rotten potatoes, which indeed proved supremely attractive to all six species of bird on the cottage lawn. They battened on them as a gorgeous admiral or peacock butterfly will dope itself with a rotting windfall in late autumn.

It is, of course, difficult to find a form of food that most birds will not eat in the hungry months. It is a strange though an adaptive fact that most classes of creature change their habits about the same date. Take some unrelated facts recently announced: the grub of the Colorado beetle is safely underground by October 14. The hedgehog becomes a vegetarian, instead of a partial flesh-eater, about October 14. For myself, I once made some little research into the feeding habits of the partridge, and found that it becomes not only vegetarian but chiefly a salad-eater as November approached. The flesh of the late partridge, like all flesh, is grass. Birds that are not usually fruit-eaters will delight in fruit, though their taste is capricious: a large Blenheim orange that had become woolly was consumed at great speed by little beaks and big beaks. Another nameless apple was entirely scorned. Yet some birds remain irremediably carnivorous if there is any choice: the wren and the green woodpecker (one of which has a peculiar fondness for ants in the garden) are examples; and nearly all share

the robins' desire for fat. Starlings, for example, are particularly attracted to sewage farms, where they feed on the fat deposits left in the clinker. Was it some such observation that suggested to the famous Baron Burlepsch his plum-pudding tree, which consisted, as to its foundation, of molten fat poured over a tree, artificial or natural? Nuts are full of fat and please particular birds, especially the nuthatch, otherwise hard to attract. I have had some success with a rough garden sieve into which shelled nuts were inserted. Nuts placed in the crevices of bark of a tree some fifteen yards from a neighbour's window drew both the nuthatch and the greater spotted woodpecker—a glorious bird to watch. We are not all so lucky. A nut that I put in the bark of a big acacia is now a hazel tree of several inches in height, growing parasitically on the spot! So much, here and now, about food. Water is very nearly as important, especially in frost, when it is hardest to supply.

4

The better part of the village is wont to attend the Boxing Day meet of the hounds, held by tradition in front of the country house. Folk are too numerous for some of the too deeply engrooved members of the hunt who enjoy the smallest possible field and regard any pedestrian as an inferior being. He would probably miscall the tail of both hound and fox; and always heads a fox where possible. Nevertheless the rider on "Shanks, his mare," sees much that escapes those proud people mounted on thoroughbred and hunter. They are content with the grip of the knee, with the lively spring of the hocks beneath them, and see everything through the frame of the keen cocked ears in front of them,

especially the events of the chase for which they have gathered; but even at a Bank Holiday meet they must come first: the scene belongs to them. Even though they may miss the best, they will hardly acknowledge it. They are met in front of the generous house set in a generous English scene; and there is some leisure to disentangle the quality of horse and hound and rider. Here is a Shetland, there is a Welsh pony, and this proudly carries Pamela, famous for her display of language when she was made Master for the day, at the annual pony hunt. Perhaps there is also present the small boy whom she abused as a "something, something tadpole," when he rode too near her hounds. The horses are not the mere thoroughbreds desired more for the gallop than for leppin' by urban visitors to the Shires. Some, indeed, will obviously be most at their ease if the hounds cannot escape far from the coverts.

The sixteen couples of hounds may well be called a mixed pack. You may find packs in the Shires, where every hound looks as if he were a candidate for prize honours at Peterboro'; and you may wonder whether this is as it should be. Some remember a type of lemon-coloured hound, wholly tireless, keen in scent, and clever as the fox he chases; and as he looks at the exaggerated "cat feet" and the uniform pattern he asks whether the show has not bred his intelligence and nose and perhaps other virtues out of the foxhound as beyond all question it has been bred out of the fox-terrier. This is as it may be. These hounds, if it may be said, are not so very much more uniform than the horses. Two are almost white, keep their heads low, and have the shagginess almost of a rough-haired terrier. Are they any the worse for that? There is one dog at any rate that has lost none of his proper qualities. He is carried—and is no burden

—in a bag resting on the saddle. Out of it he holds up his head with pricked ears and every ounce of zeal concentrated on the pack. As Raleigh said well: "The nightingale would win no prize at a poultry show." This infinitely eager and plucky terrier is meant not for the bench, but the earth. It is a miracle how hound and dog desire a particular quarry. Two hounds from this pack were sent some years ago to the Argentine to save the stock from the puma and learnt their peculiar enemy over there as these others have learnt theirs here. Foxhunters and the hunters they mount, fox hounds, and fox terriers are as closely specialised as a turnspit.

And now they leave the spacious drive and lawns and vanish in long perspective down the avenue and into the wood. Only remains a little girl in a perambulator, a fox-hunter doll booted and spurred in one hand and a horn in the other. What a scene it was! and like no other. As gay and rhythmic perhaps as any medieval hunt,

Where hunters gather, staghounds bay Round some fair forest lodge at morn;

but with its own rough, English, homely naturalness. It might have been compounded for the sake of its own picturesqueness. The holiday walkers start with them; and two at least, clad in running shorts and looking queerly athletic, may cling for a long time to the tail of the chase, but the harvest of the few who remain in and about the woods, after the hunt has vanished, has yet to come. The avenue that leads from house to wood is of old Spanish chestnuts. The fluted bark of each trunk is twisted spirally from right to left about the base as if the architect of the fluted pillars of the Lonha at Palma had been exercising his art. The pale leaves lying on

the ground, here and there drifted into heaps, are mixed with the ruddy spilth from the beeches whose smooth green-grey trunks are as sharply contrasted as their leaves. How full of colour is the carpet! How full of form the pencilled outlines of bough and trunk! and presently the meditative walker reaches a ride, a corridor, a cloister that crosses the wood from side to side. Very faint and far come sounds that may be the music of the pack and the call of the horn and the last halloo. These might be

The horns of Elfland faintly blowing.

But they are of another world. The pock marks made by galloping horses down the ride are already filled with ooze. Already a rabbit or two is feeling his timid way into the open. The jays shout gleefully, and from his drey in an oak looks out a red squirrel. The place has forgotten the hunt. It has disturbed nothing. The pheasants have done no more than fly from one part of the wood to the other. Perhaps the cause is a sense of relief, but never does one seem to see so many animals at their ease as in the wake of a hunt. Even the scattered cubs will be back again within half an hour, alert and yet careless, stepping daintily. Animals soon forget. It is harrying that brings misery, as the hunters appear to feel. The buzzard, as we have seen, hunts over wide spaces and seldom near home. The stoat travels far, as the huntsman scatters his meets. None of them nags. So it comes about that those who lag behind the chase, preferring, for all its vivacious glamour, like the monks of the Grande Chartreuse, a sylvan solitude, discover that the covert, just now combed out by the pack, and watched on all sides by a hundred pairs of eyes, has become the transformation scene of the Christmas pantomime. The

drawn wood, the noisy ride, are now as the cloister of a sanctuary, the hearth of a home.

5.

By Holkham, in Norfolk, a stretch of land, as famous among naturalists as the more inland farms are famous among husbandmen, runs beside the sandy seaboard. Some part of the region is afforested with pines, some is marsh of varying degrees of consistency, some is intermittently flooded, and the plain of lowland is separated from the plain of the sea by dunes or sandy ridges. This region, peculiar in its combination of wild qualities, attracts a peculiar population. Such lands are as distinctive in their animal denizens as in their plants. Even Breckland, or what part of it has been saved from afforestation by needle-leaved trees, is not more distinctively inhabited. The region where Wells merges into Holkham has been chosen for centuries as its favourite haunt by the pink-footed goose, a great bird that most of us have rare chances of seeing. Here the bird has long found its optimum, its pick of favouring conditions; but fears are abroad that the geese are deserting their Paradise. It becomes too dangerous.

The geese have been regarded as fair game. Sportsmen of many sorts have lain in wait for them in many secret places, especially in the dunes; and have taken toll, but not heavy toll. The goose—whether pink-footed or lag or Brent—is a very clever bird. Mr. Massingham, who is among the best of our philosophic observers, argues that it is the cleverest of all birds. Incidentally, how has it come about that we use the goose and the owl, both of which excel in wisdom, as types of stupidity? The clever geese have learnt to rise high when passing the

dunes, being well aware of the ways of sportsmen who practise the rather ambiguous art of flighting, of waiting on the line of flight between the feeding and the sleeping grounds. Sport, to justify itself, should be a battle of wits; and the fowlers who have succeeded in shooting geese have usually worked hard for it. They have needed a knowledge of the birds' habits, and have faced hard conditions. In any event, such hunters have not much lessened the flocks of geese or frightened them away from a natural and native haunt. The men and the birds have seen the dawn break, which also, in Homer's phrase, is pink-footed; and felt the mysterious enchantment of the lights that at dawn and sunset give the fenland its supreme and special glory.

Of late greedier and falser methods of warfare have been practised. Gunners dig holes near the shore within reach of the dormitory of the geese. They were willing to face the dangers of travel; but they must sleep in peace. It used to be an unwritten law that birds should be allowed to rest undisturbed. Men do not shoot duck asleep on the lake or partridges "jugging" in the tussocks, or pheasants roosting in the trees. One quite practical reason is that birds disturbed at night are apt to desert the neighbourhood altogether. And the neighbourhood becomes famous also for another species, the Canada goose. The introduced pairs have multiplied exceedingly in this part of Norfolk, as on many estates blessed with any sort of lake. I watch their evening and morning migrations in my own neighbourhood, and they demand attention for they make a joyful clamour, almost suggestive of an express train, as they fly high overhead. The Canada geese, too, have attracted errant enemies, who pay little regard to the habits of any bird, whether wild or half tame. The new form of onslaught and the

multiplying persecutors begin to alter the ecology, as the men of science say, of the birds. The other day near Holkham four great flocks of pink-footed geese flew overhead. Each flock contained more than two hundred birds, perhaps as many as three hundred; it is hard to estimate such numbers; but in all they made a battalion at full strength. The splendid spectacle was also significant, for they gave the old historic haunt the go-by and flew on and on—it is wiser not to say to what destination, or even in what direction. This desertion and the dwind-ling of the Canada geese, who are less wary, has bred the desire for yet another sanctuary on that idyllic coast. Cley, Blakeney, Scolt Head—the names, like Rossetti's angels, are "sweet symphonies" in the ear of the naturalist, and if the chain of sweet sounds is lengthened they would all rejoice. Let the pink-footed geese greet the rosy-toed dawn as safely as the shelduck on the Scolt head dunes which composed one year's Christmas card of the Norfolk Naturalists' Trust.

Birds soon discover sanctuary and, like Lord Grey's faithful teal, are tame within it, and wild even a yard or two outside. One of the classical examples of quick and general discovery and appreciation of a sanctuary concerns migrating geese. We may do in East England just what Mr. Jack Miner did in Ontario; and in a country where big birds are few, though small birds are plenty, a sanctuary for geese would be well worth while.

6.

The old-fashioned December, decorated with snow and frost and shivering robins, is doubtless a myth. The month has usually been open for the greater part; and the great frosts have belonged to the new year, not the

old. But there are degrees of so-called unseasonableness; and now and again December resembles an early spring or autumn month. Certainly the December of 1934 was so exceptional that some of its abnormal events are worth putting on record, precisely. The villagers are quite as nearly interested as the international phenologists, as they call themselves, the men who study the dates of appearances and try to discover correlations that may be useful to man, or as the weather expert of the neighbouring agricultural station whose records of the month were entirely surpassed.

The following census of flowers in bloom was made in the week following Christmas Day. The place was the spacious and precious garden of a glorious country house a score of miles north of London. One of the features of the garden is a pair of immense cedars; and the owner was gratified on a visit to Lebanon to discover that the trees did not grow in their native home to any size at all comparable with the transplanted cedars, with their immense "layers of shade," which was their special virtue in the eyes of that precise and particular observer, the poet Tennyson. It contained many exotic trees as well as some exotic birds; and inside its pale are flourishing many of the rare, and as yet unknown, plants that were harvested in Tibet by Mr. Kingdon Ward, that greatest of to-day's travellers in plants. Such a garden may not be called characteristic or normal, though it is very English and typical of the best of the country houses that are the source of some of the greatest beauties in English life and scenery. The village loves its country house and rejoices to compare notes between the smallest garden and the greatest. The little daphne is as deeply admired, and certainly gives as much pleasure as autumnalis. Its sweet, modest, almost violet-like blossoms

that greet the early year are as precious as the white splendour of the rare prunus that has conspicuously adorned the spacious lawn of the country house on the hill above the cottage.

So it is not only the botanical specialist that is proud of the census of flowers, taken as a greeting to the New Year in the big garden. The following plants, which number over fifty, were in blossom:

Lonicera standistii Lonicera fragrantissima Buddleia auriculata Berberis Bealii Berberis Darwinii Choisia ternata Viburnum fragrans Chimonanthes fragrans Cyclamen europeum Cyclamen abericum Jasminum nudiflorum Erica lusitanica Daphne mezereum album Forsythia spectabilis Pieris tainvanevsis Pieris floribunda Veronica spicata and hybrids

Arbutus unedo

Prunus subhirtella autumnalis

Viburnum tinus Anchusa myrititiflora

Violets

Pernettya mucronata

Clarkia
Iris lustris
Anemone coronaria
Crocus aurens
Iris unguicularis

Iris stylosa
Crocus laevigatus
Crocus vitelinus
Crocus graeca
Crocus coryensis

Narcissus bulbocodium

Erica darleyansis

Senecio

Cheiranthus cheiri

Ceanothus Edinburgh hybrids

Chrysanthemum mawyi Chrysanthemum garden

Primulae

Schisostylis coccinea Narcissus Fazetta

Abutilon megapotanicum

Nerine Bowdeni Jasminum primutinum

Primula polyanthus Helebore in var. Anemone hepatica

Marigold

Polyanthus rose

Verbena Gorse Vinca min. Marguerite

These cultivated flowers find no near parallel in the wild flowers; but a very great number of these, too, though they are wiser students of our climate, are in fresh and springlike bloom. You could make a long list, headed by the daisies, dandelions, dead nettles, and primroses that usually put out a few flowers to greet the New Year. On the first day of another and less open year a cottage garden census gave sixty flowers. The daisies are in carpets; and some much more surprising blossoms are near them. On the coast of Dorset a good deal of viper's bugloss was out; and its flowers, that can never decide whether to be red or blue, are curiously similar in tints (which are rare tints) to the lungworts that flower in our gardens, if we are wise enough to encourage such common things. Some of the blossoms are due, perhaps, to the discouragement of a dry summer, though its suns were in general makers of flowers. For example, I transplanted in the spring two bushes, one a climbing rose, the other a Pirus japonica. Both fought hard against heat and drought and finally won. The red flowers that have now come out are perhaps the delayed reward of the hard struggle. They were thrust into a new garden of which the outstanding miracle—to which I know no parallel—has been the crop of mushrooms.

On New Year's Day some hopeful gardeners have the pretty custom of making a census of the braver plants that bloom in the face of winter; and the list is unbelievably long. It denies altogether the general impression. Here is one list belonging to a garden teed up on a considerably raised ground well to the north of London:

> Stocks Primroses

Chrysanthemums Rosemary Toad Flax (pink var.)

Valerian White Jessamine Yellow Rudbeckia

Helenium Gladiolus Ageratum

Fuchsia

Poppies (two vars.) Yellow Jessamine

Iris Stylosa Nasturtium Phlox Plumbago

Primrose

Mignonette
Virginia Stock.
Love in a Mist

Phlox Drummondii Cyclamen

Wych Hazel Marigold Enothera Forget-me-Not

Michaelmas Daisies

Roses

Christmas Rose Cheiranthus

White Heather

Veronicas Antirrhinum Penstemon Carnation

Allwoodii Pinks Liatris Spicata

Dahlias

White Alyssum

Pansy Violas

Gentian (acaulis) Sweet William Algerian Daisy Aster Alpinus Rosea

Arabis

Himalayan Cowslips Campanula Muralis

Pinks in variety (Napoleon

and "orange")

Aubretia
Geum Borisii
Catmint
Daisies

Chrysanthemum Magna

Violets

Anemone Sylvestris Anemone Japonica Anemone St. Brigid

Auriculas

Now, longer lists could be made in bigger and more southerly and westerly gardens. A good many wild flowers might be added. In my garden a neglected patch lies alongside a bit of old rock garden. The one is as gay with the white dead nettle—which is a facile princeps among persistent flowerers, whether early or late—as the other with the so-called double arabis. Longer lists have been made in other years in November; but on the

edge of frost and snow and sleet and gale it is well to record the extreme lateness of one season. The eve of December is very much the same as the eve of most Novembers.

Flowers are early, like the heather; late, like the arabis; seasonable, like the naked-flowered jessamine—and that strange year ending with an early winter as with a late autumn. We picked the most characteristic of wild plants, the field mushroom, in the last week of December. That was strange; but to some it is stranger that we also picked excellent raspberries, the most delicious of any summer fruits. The mushrooms and raspberries are, nevertheless, in very different categories. The one is an exceptional gift of an exceptional season; the other is a permanent advance in the art and craft of defeating the sun. By combing out the world from China, especially China, to Peru and by scientific breeding we have in some measure composed a complete floral girdle for the year in this northern but temperate island. "Perpetual" and "perennial" (which we use as lightly as "permanent" in a very different application) become more or less accurate. The Lloyd George raspberry always fruits in late November. The winter jessamine always flowers in December. Roses (at any rate in the Isle of Wight and the south-west counties) can be picked in every month, perhaps in every week, of the year. Praecox is an adjective proper to many more plants than the Himalayan rhododendron (or rose-tree) which anticipates spring at Kew in that fertile crook of the Thames, where ver semper viret. Our zoological and botanic gardens differ in this. The imported birds have an inclination to obey the seasons of their adopted country. Many of the plants keep true to their native almanac and go on flowering at their accustomed date, though the mercury

falls and the days are dark. Some, of course, are by

as with a sense And faculty for storm and turbulence.

Among these is our native honeysuckle, and its taste for winter has been so encouraged by the man of science that winter-flowering varieties have been established and are as precious an addition to the winter garden as the earliest heath or rhododendron. One may well forget winter even on a dark and frosty evening when a little vase on the window-ledge holds mauve sprays of that glory of precocity, the Iris Stylosa, and yellow sprays of the naked jessamine.



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